

THE MEDICAL EXAMINER,

AND

RECORD OF MEDICAL SCIENCE.

NEW SERIES.—No. XXXIX.—MARCH, 1848.

ORIGINAL COMMUNICATIONS.

On Chloroform. By PROFESSORS SIMPSON and MEIGS.

We have been favoured by Professor Meigs with the following letter from Dr. Simpson, and his reply. A correspondence between these two eminent teachers of obstetrics, on the use of this new agent in the practice of midwifery, will be read with deep interest.

EDINBURGH, January 23rd, 1848.

Dear Sir,—By private letters from America, brought by the last steamer, I hear that in most of the cities of the Union, your chemists had failed in preparing proper chloroform; and that consequently, most experiments tried with it, had been unsuccessful. In Great Britain and on the Continent of Europe, chloroform has every where entirely, or nearly entirely, superseded the use of sulphuric ether, as an anæsthetic agent. The want of success which has attended its employment in America, is, perhaps, owing in a great measure to an error of my own, viz.: to my not stating in my original account of it, the proper method of purifying it. This and other omissions were owing to the haste with which my first paper was drawn up.

I will feel, therefore, deeply obliged by your taking any measures that you may deem fit, to circulate amongst American

medical men, the formula which I inclose for the preparation of chloroform. It is the formula used by Messrs. Duncan and Flockhart, our Edinburgh druggists, who have already manufactured enormous quantities of it. They always now are able to produce it as heavy as 1500 in specific gravity. Their first distillation of it is made in two large wooden barrels, with a third similar barrel as a receiver. They throw hot steam into the two first barrels, which serves to afford both sufficient heat and water for the process. They employ sixty pounds of chloride of lime at each distillation, and have been able to manufacture three hundred ounces of chloroform a day. Each ounce of the chloride yields, in the long run, about half an ounce of chloroform: consequently, to obtain three hundred ounces, (as above) about six hundred ounces of bleaching powder are required. At first they could only make ten or twenty ounces per diem, then they rose to sixty, and latterly, enlarging their barrels, they can make, as I have said, three hundred ounces in the twenty-four hours.

Various other chemical houses in Edinburgh, Liverpool, Glasgow, York, London, &c., are busy manufacturing it, in great quantities. They keep their formulas as secrets. But none of them make so good an article as Duncan & Flockhart, whose formula I append.

The statements which I have already made, may show you to what an extent the chloroform is used in this country; and our chemists tell me that the demand for it steadily increases with them.

In *Surgery*, its use is quite general, for operations, painful diagnosis, &c. My friend, Dr. Andrew Wood, has just been telling me of a beautiful application of it. A boy fell from a height, and severely injured his thigh. It was so painful that he shrieked when Dr. Wood tried to handle the limb; and would not allow of a proper examination. Dr. W. immediately chloroformed him—at once ascertained that the femur was fractured—kept him anæsthetic till he sent for his splints—and did not allow his patient to awake till his limb was all properly set, bandaged, and adjusted.

In *Medicine* its effects are being extensively tried as an anodyne, an anæsthetic, a diffusible stimulant, &c. Its anti-spasmodic powers in colic, asthma, &c., are every where recognized.

In *Midwifery*, most or all of my brethren in Edinburgh employ it constantly. The ladies themselves, insist on not being doomed to suffer, when suffering is so totally unnecessary. In London, Dublin, &c., it every day gains converts to its obstetric employment, and I have no doubt that those who most bitterly oppose it now, will be yet, in ten or twenty years hence, amazed at their own professional cruelty. They allow their medical prejudices to smother and over-rule the common dictates of their profession, and of humanity.

No accidents have as yet happened under its use, though several hundred thousand must have already been under the influence of chloroform. Its use here has been a common amusement in drawing-room parties, for the last two or three months.

I never now apply it with anything but a silk handkerchief. In surgical cases and operations, the quantity given is not in general measured. We all judge more by the *effects* than the *quantity*. Generally, I believe, we pour two or three drachms on the handkerchief at once, and more in a *minute*, if no sufficient effect is produced, and we stop when sonorous respiration begins. Not unfrequently spasms, rigidity, &c., come on, but they disappear as the effect increases, and none of us care for them any more than for hysteric symptoms; nor do they leave any bad effect. But the mere *appearance* of them is enough to terrify a beginner.

I shall be glad to hear how the cause of anæsthesia gets on among you, and I remain with great respect,

Very faithfully yours,

J. Y. SIMPSON.

TO PROFESSOR MEIGS.

The following is the formula for Chloroform, communicated by Professor Simpson:

Take of Chloride of Lime in powder,	4 pounds.
Water,	12 “
Rectified Spirit,	12 fluid ounces.
	“ Dumas.”

The chloride of lime and water being first well mixed together, the spirit is added. Heat is then applied to the still, (which ought not to be more than a third full,) but as soon as the upper part of the still becomes warm, the heat is withdrawn and the

action allowed to go on of itself. In a short time the distillation commences, and whenever it begins to go on slowly the heat is again applied. The fluid which passes over separates into two layers, the lower of which is Chloroform. This, after having been separated from the weak spirit forming the upper layer, is purified by being mixed with half its measure of strong sulphuric acid, added gradually. The mixture, when cool, is poured into a leaden retort, and distilled from as much carbonate of baryta by weight, as there is of sulphuric acid by measure. The product should be allowed to stand over quicklime for a day or two, and repeatedly shaken and then redistilled from the lime.

Dr. Meigs' Reply to Professor Simpson's Letter.

PHILADELPHIA, Feb. 18th, 1848.

Dear Sir,—I have to acknowledge the favour of your letter of Jan. 23d, which I received yesterday.

The chemists in this country have produced very perfect chloroform, of the specific gravity of 1450, as I am informed, and which is much employed in dentistry operations, and to a considerable extent also in surgery.

I presume you will, ere this date, have received copies of Prof. Warren's pamphlet on "Etherization," which may inform you, very fully, as to the use of the anæsthetic agent in the Massachusetts General Hospital and in Boston. That eminent gentleman is more reserved as to the obstetric employment of the agent; much more so, I understand, than either Dr. Channing, Dr. Homan, and other practitioners, who make use of it very commonly.

In New York, as I learn, the surgical application of chloroform is common, while its obstetrical use has not as yet acquired a general vogue.

In Philadelphia, we have the Pennsylvania Hospital, with more than two hundred beds. A very considerable amount of surgical practice, which renders that house a favourite clinical study for medical students of the United States, has not, as yet, furnished a single example of the exhibition of chloroform or ether as anæsthetic agents. The Surgical staff of the Institution have not become convinced of the propriety of such a recourse in the operations performed there.

In the Jefferson College, to which I am attached, as Professor of Midwifery, etc., there is a medical and surgical Clinic held on the Wednesday and Saturday in each week. The resort of surgical cases there is very great, and a Clinical day rarely passes without some surgical operations before the Classes. The clinical professors, (in surgery) Drs. Mütter and Pancoast, almost invariably employ the chloroform, and the successful exhibition of the article has entirely confirmed them in their opinion of its great value. Some of the operations have been of the gravest character, and no serious event has occurred to check the career of the remedy.

As to its employment in Midwifery here, notwithstanding a few cases have been mentioned and reported, I think it has not yet begun to find favour with accoucheurs.

I have not exhibited it in any case; nor do I, at present, know of any intention in that way, entertained by the leading practitioners of obstetrical medicine and surgery, in this city. I have not yielded to several solicitations as to its exhibition addressed to me by my patients in labour.

As to the extension of the anæsthesia in the Southern and Western States, I am not at present enabled to give you information. I believe the practice is slowly gaining converts, and that it will become more and more common ere long.

You may perhaps feel surprised at this admission on my part, seeing that I am still a recusant; and I ought therefore to be allowed to explain myself, lest I should continue to appear unreasonable in your eyes.

Having carefully read the *Comptes Rendus* of the Royal Academy of Medicine of Paris, which contained full Reports of the copious discussions on the question of the Letheon, a few months since, and having also seen the English and American Reports in the Journals, and particularly having read your own pamphlet of "Remarks," &c., I may not properly be accused of ignorance of the power, effects, or motives, in relation to chloroformization in surgery or obstetrics. The copy of your own pamphlet, for which I now beg leave to thank you, would necessarily have put me *au niveau* on the subject.

Not being myself engaged in the practice of surgery, proper, I prefer to avoid any expression of opinion as to the propriety

of the practice; and I do this upon the principle, *sum cuique tribuito*. It would be an impertinence in me, were I to interfere with the conduct of the surgeons.

But, in midwifery, to which a long and extensive practice has enured me, and rendered me a familiar, dispassionate witness of its various forms and phenomena, I am less liable to misconceptions. And here allow me to say, I have been accustomed to look upon the sensation of pain in labour as a physiological relative of the power or force; and notwithstanding I have seen so many women in the throes of labour, I have always regarded a labour-pain as a most desirable, salutary, and conservative manifestation of life-force. I have found that women, provided they were sustained by cheering counsel and promises, and carefully freed from the distressing element of terror, could in general be made to endure without great complaint, those labour-pains which the friends of the anæsthesia desire so earnestly to abolish and nullify for all the fair daughters of Eve.

Perhaps, dear sir, I *am* cruel in taking so dispassionate a view of the case; and it is even possible that I may make one of the number of those "amazed" converts of whom you speak in your worthy letter to me. But, for the present, regarding the pain of a Natural labour as a state not, by *all* possible means and always, to be eschewed and obviated, I cannot bring myself to the conviction that of the two, whether labour-pain or insensibility, insensibility is to be preferred.

If I could believe that *chloroformal* insensibility is sleep indeed, the most considerable of my objections would vanish. Chloroform is not a soporific; and I see in the anæsthesia it superinduces a state of the nervous system in no wise differing from the anæsthetic results of alcoholic potations, save in the suddenness and transi-
tiveness of its influence.

I freely admit, for I know it, that many thousands of persons are daily subjected to its power. Yet I feel that no law of succession of its action on the several distinct parts of the brain has been or can be hereafter ascertained, seeing that the succession is contingent. Many grave objections would perhaps vanish could the law of the succession of influences on the parts of the brain be clearly made out and its provisions ensured. There are, indubitably, certain cases in which the intellectual hemispheres are totally

hebetized and deprived of power by it, while the co-ordinating lobes remain perfectly unaffected. In others the motor cords of the cerebro-spinal nerves are deprived of power, whilst the sensitive cords enjoy a full activity, and vice versâ.

In some instances, the seeing brain enables the patient to look upon the application of a cautery that he does not feel while it sears him, or of a bistoury, whose edge gives him no pain. In others, the influence of the agent upon the sources of the pneumogastric and phrenic nerves is dangerously, or at least alarmingly, made manifest by modifications of the respiratory force. It appears to me therefore quite certain that there is no known law of succession of the ether-influences on the several parts of the brain. It is known that the continued aspiration of the vapour brings at last the medulla oblongata fully under its anæsthetic power, and the consequent cessation of respiration, which determines the cessation of the oxygenation of the blood, and thereby of the brain, is death. M. Flourens' experiments, and others, especially those by the younger Mr. Wakley, of the *Lancet*, prove very conclusively that the aspiration of ether or chloroform, continued but a little longer than the period required for hebetizing the hemispheres, the cerebellum, the tubercula quadrigemina, and the cord, overthrows the medulla oblongata, and produces thereby sudden death. I fully believe with M. Flourens that the medulla oblongata is the *nœud vital*, and that, though later brought under the power of chloroformization, it is always reducible under it. Hence I fear that in all cases of chloroformal anæsthesia, there remains but one irrevocable step more to the grave.

I readily hear, before your voice can reach me across the Atlantic, the triumphant reply that an hundred thousand have taken it *without accident*! I am a witness that it is attended with alarming accidents, however rarely. But should I exhibit the remedy for pain to a thousand patients in labour, merely to prevent the physiological pain, and for no other motive—and if I should in consequence destroy only one of them, I should feel disposed to clothe me in sack-cloth, and cast ashes on my head for the remainder of my days. What sufficient motive have I to risk the life or the death of one in a thousand, in a questionable attempt to abrogate one of the general conditions of man?

As to the uses of chloroform in the medical or therapeutical treatment of pain, the question changes. There is no reasonable therapia of health. Hygieinical processes are good and valid. The sick need a physician, not they that are well. To be in natural labour is the culminating point of the female somatic forces. There is, in natural labour, no element of disease—and, therefore, the good old writers have said nothing truer nor wiser than their old saying, that “*a meddlesome midwifery is bad.*” Is chloroformization meddlesome?

Your countryman, old Thomas Rainold, in “the Woman’s Booke, or The byrthe of Mankynde, at fol. LIII. says, “Very many be the perilles, daungers, and thronges, which chaunce to women in theyr labour.” These are the cases requiring our therapeutical and chirurgical intervention. You will, my dear sir, think me a hopeless recusant, if I decline the anæsthesia here also. I pray you, therefore, allow me to state my reasons for such recusancy.

If I were amputating a limb, or extirpating a tumour, I should see all the steps of my incisions, ligations, &c. But if I apply my forceps in a right occipito-posterior position, (fourth of Baudeloque,) I know that I thrust the blade of the male branch, far upwards betwixt the face of the child and the upper third of the vagina, which, in this case, is already greatly expanded, and that the extremity of the blade is separated from the peritoneum, only by the mucous and condensed cellular coat of the tube. Now, no man, can *absolutely* know the precise degree of inclination his patient will give to the plane of her superior strait, while in pain; an inclination to be modified by every movement of her body and limbs. Under such absolute uncertainty, the best guide of the accoucheur is the reply of the patient to his interrogatory, “Does it hurt you?” The patient’s reply, “Yes and no,” are worth a thousand dogmas and precepts, as to planes and axes, and curves of Carus. I cannot, therefore, deem myself justified in casting away my safest and most trustworthy diagnosis, for the questionable equivalent of ten minutes exemption from a pain, which, even in this case, is a physiological pain.

Having thus, in my own defence, and not as attacking your opinion, set forth the motives that have hitherto served to restrain me from the administration of chloroform, I desist from giving you any further trouble in this line of thought. I have, sir, a far more pleasing

duty to perform, in saying that your name is as well known, perhaps, in America as in your native land, and to congratulate you on the extension of your fame. I had the pleasure to read your interesting letter to my class, consisting of several hundred young gentlemen, who listened to your words with the same respect, as they would have paid to you, had they been pronounced by your own lips. They will disperse themselves in a few days hence, over all the States of the Union, and thus will have it in their power to report the latest dates of your opinions as to chloroform. I shall also allow it to be published on the first proximo, in a medical journal of extensive circulation. You will herein perceive the readiness with which I assist in disseminating your views. It is not without regret that I find myself opposed to your opinions in the case. That difference ought not, however, in the least degree to affect those sentiments of respectful consideration and real esteem with which I am, dear sir, very faithfully, your obedient servant,

CH. D. MEIGS.

PROFESSOR SIMPSON, &c.

Further Remarks on the Use of Ether in Obstetrical Practice.
Report of Cases in continuation of those published in the
Number of the Examiner for October, 1847. By JONATHAN
CLARK, M. D.

CASE 7th.—At 2 o'clock, P. M., on the 16th of October, I saw Mrs. —, of Roxborough, aged 20, in labour with her first child.

Her pains had come on early in the day, and had increased gradually in frequency and force until I saw her, when they were severe and frequent. There was a most distressing nausea, with vomiting occasionally of acid matter. On examining her *per vaginam*, the *os uteri* appeared to be very little dilated. The head was presenting, but high up in the pelvis.

An antacid mixture was administered, with a view of correcting the acid state of the stomach; when, as there was little prospect of a rapid progress, I left her for a time. Returning at 4 o'clock, there was still little progress; nausea and vomiting, about the same as before. I now took 16 oz. of blood from the arm. This

had a marked effect on the state of the os uteri, which dilated much more rapidly, enabling me to determine the position of the head to be with the vertex to the left acetabulum.

As she was anxious to inhale the ether, having seen its effects in a like case of one of her neighbours, I administered it. This was at half past 4 o'clock; in three minutes she was fully under its influence. Her pulse, which had been 85 when she commenced, rose to 90 beats in the minute, and continued at this rate for a short time, and then fell to 79, and remained at that rate.

The expulsive efforts were not so frequent, when she was in a complete state of lethargy, as when she appeared to be partly conscious, and showed indications of some suffering. After she had been under the influence of the ether for three hours, I resolved to deliver with the forceps. The length of time elapsing since the labour had commenced, and the prospect of its continuance for some hours longer, were, I thought, sufficient reasons for a resort to this alternative. I should mention, that from the first inhalation, the nausea and vomiting had entirely ceased. Having seen it stated somewhere, that it was safest, or most prudent, to apply the instruments while the patient was *not* under the influence of the ether, thus having the feeling of the patient as a guide to prevent injury during their application, I withheld the sponge till she became apparently conscious of what was occurring near her, answered questions, and vehemently demanded more ether.

With some trouble, owing to the contracted or rather undilated state of the os externum, and to the position of the head, the vertex being far to the left, I succeeded in adjusting the blades with less than the usual amount of suffering. Renewing the inhalation till a complete lethargy was induced, and then during the expulsive efforts of the uterus, making guarded efforts to extract the head, I, after the third pain, was successful, having renewed the inhalation twice during the efforts. There was no difficulty in determining when a pain was present, even when the patient was in a profound lethargy, more or less motion being communicated to the forceps by the contraction of the uterus. The child, a female of average size, was vigorous, and did well. The placenta came away in a short time, without the knowledge of the

patient. In six minutes, being eight minutes after the child was delivered, she regained her consciousness.

She had not any recollection of the birth of the child, nor yet of the application of the forceps. This was a little remarkable, as I had discontinued the use of the ether for a time while applying them, and had thought from her manner, that she was not under its influence. No untoward symptoms showed themselves until the fifth day, when she was seized in the morning with a violent chill, followed by fever and profuse perspiration. A repetition of the same symptoms occurred on the following day. This difficulty yielded to mercurials and quinine in a couple of days; since which she has convalesced pleasantly, and is now well.

CASE 8th. At 7 o'clock, A. M., October 28th, I was requested to see Mrs. —, aged 22, of Lower Merion, in labour with her first child. She had been all night in labour. The pains were not of a severe character, although they prevented her from obtaining any rest. An examination *per vaginam* showed the *os uteri* to be dilated to the size of a sixpence, and quite rigid.

The membranes had been ruptured spontaneously some time previously. As there was little progress making, I left her and returned at noon.

An examination then showed the head to be presenting, the *os uteri* dilated to the extent of three inches, and dilatable, the vertex to the left acetabulum. Quite severe pains were recurring at intervals of two and a half to three minutes. They were more annoying than effective in forwarding the labour, seeming to lack in a remarkable degree expulsive power.

As her patience was well nigh exhausted, I proposed the ether, a means of relief which was acceded to. Her pulse was 112 when she commenced inhaling; in two minutes it fell to 80. This was at half past 1 o'clock. The pains were not quite as frequent as before inhaling the ether. She lay with her eyes closed, apparently free from suffering except when the ether evaporated from the sponge; she would then, during a contraction of the uterus, begin to make an effort to say something, squeezing the sponge and holding it very *tightly* to her face. In the next pain, however, she would remove the sponge, and call for more: "quick, quick, give me more."

I was fearful that my supply of ether would not hold out, having but a limited quantity, and the slow progress of the case indicating that she would have to be kept under its influence for a considerable time. An attempt to economise by putting less on the sponge, soon occasioned her to demand more, when I told her that she must not use it fast or it would not hold out; she replied very sharply, "that is your look out."

The length of time she had been in labour, together with the slow progress the case was making, and the certainty of seeing her suffer severely when the ether was gone, induced me to resort to the forceps. I made an effort to withhold the ether previous to their application, but she would not listen to any such arrangement, nor the reasons for it, but completely overwhelmed me with solicitations for more whenever I attempted to explain. I yielded to her wishes, and applied the instruments while she was in a complete lethargy, taking great care to use no force whatever. With unusual facility I succeeded in adapting the instruments to the head, and by gentle traction at proper intervals delivered the child, a large female, which has done well. The placenta came away in a short time, but not until she had recovered her sense of pain, and wished much to take some more ether on account of it. She had no knowledge whatever of the use of the instrument or the birth of the child. She recovered pleasantly without an unfavourable symptom, and is now quite well.

CASE 9th.—Oct. 30th, at 7 o'clock, A. M., I saw Mrs. —, aged 20, of Manayunk, in labour with her first child. She had been suffering pain at intervals since the day before, and had slept none during the night. At the time I saw her the pains were quite regular, recurring at intervals of three minutes. After waiting a short time, I made an examination, which showed the os uteri to be slightly dilated, and dilateable, the membranes entire, and the head presenting with the vertex to the left acetabulum. She was anxious to take the ether, having some weeks previously made arrangements for that purpose, by procuring a supply of it, and a sponge, fearing I might neglect to bring them when called to attend her. At a quarter to nine o'clock she commenced inhaling the vapour, and in two minutes dropped the sponge, being in a complete lethargy.

This did not last, however, more than three minutes, when a pain came on, which partially roused her, when she again grasped the sponge and renewed the inhalation. The labour progressed slowly but regularly. When the os uteri was sufficiently dilated I ruptured the membranes during a pain.

I observed that, although my patient was in a perfectly insensible state, the force with which the liquor amni was ejected was as great as I had witnessed in any case heretofore, showing that the contractile power of the uterus was not impaired. When she had been seven hours under the influence of the ether, and in actual labour twelve or thirteen, there was a prospect of its continuing some hours longer, owing to the obstruction offered by the contracted state of the os externum: I resolved to deliver with the forceps. I did not withhold the ether, but applied them while she was completely under its influence, taking great care to use no unusual force. In ten minutes from the time when the instruments were locked, she was delivered of a female child of large size, without any injury to the perineum. An assistant was directed by her to apply the sponge to her nostrils whenever her sensibility was returning, and she inhaled thus, unobserved by me, more than I wished, during the time occupied in applying the forceps, and delivering her. In eight minutes she aroused from her lethargy, but was not aware of the birth of the child nor of the use of the instruments. The placenta came away in a short time. There was considerable flooding, but not sufficient to cause alarm. What was rather unusual, it being a first case, was the occurrence of sharp after-pains, which yielded to an anodyne. The child was vigorous and healthy. On the eighth day, owing to an unpardonable error in diet, there was a severe chill, followed by a train of alarming symptoms, great depression, profuse perspiration, vomiting and diarrhœa. This difficulty yielded to appropriate treatment in a few days, and she is now doing well.

CASE 10th.—At 8 o'clock, A. M., Nov. 2d, I was requested to see Mrs. —, of Blockley, aged 24, in labour with her third child. The pains had come on during the previous evening, and had continued all night. They were regular and tolerably severe

when I saw her. An examination *per vaginam* showed dilatation of the os uteri to the extent of nearly three inches. The membranes were entire, and the head presented with the vertex to the right *sacro-iliac* junction. The os uteri was quite dilatable, and the head pretty well down in the pelvis. Therefore, after waiting a short time, I ruptured the membranes, and succeeded in bringing the vertex under the right acetabulum. The patient was of an irritable temperament, and bore her pains with very little fortitude.

The case being a favourable one, I proposed using the ether. Some of her acquaintances who were present injudiciously alarmed her by asking whether I had heard of certain cases in which it had had a bad effect, which occasioned her to decline using it for a time; but the pains becoming more severe, on being assured that it would not injure her, she consented to inhale it. In three minutes she was fully under its influence.

The pains were not so frequent as they were before she used it, but quite as efficient. When the effects of an inhalation were passing off, she would refuse to inhale again until she had almost regained her reasoning powers. There seemed to be an impression on her mind, even under etherization, that it would injure her; and this idea continued to influence her conduct until she had almost or quite regained her power of reasoning, when another train of ideas would take its place, and she would again very willingly inhale. This conduct was, I thought, owing to the remarks of her attendants; one of whom seemed to be much annoyed to see the poor woman getting through her labour without feeling each pain as acutely as she herself had done, as the mother of several children.

In thirty minutes from the time she first used the ether, she gave birth to a large male child. She was conscious at the time of its birth, but seemed to suffer very little, and expressed herself much pleased with the relief afforded by the inhalation. There was more flooding than I had observed in any case in which I had used the ether. The placenta came away promptly. When she had recovered from the effects of the ether, she complained very much of after-pains, which yielded to moderate doses of morph. sulph. She is convalescing pleasantly.

CASE 11th.—December 12th, at 4 o'clock, P. M., I saw Mrs. —, of Lower Merion, age 30, in labour with her third child. She had been suffering some hours.

At the time I saw her the pains were very severe, recurring at intervals of two minutes and a half, and of three-fourths of a minute duration. The pulse was 68 in the minute. An examination, *per vaginam*, shewed that no progress was made in the labour. With considerable effort I failed to reach the *os uteri*. This was owing to distortion of the pelvis, which had very much protracted her former labours, in both of which I had attended her. Although she had been suffering severe and regular pains for at least three hours, the membranes having been ruptured spontaneously, the head appeared not to have entered the superior strait, and I was unable to determine the presentation, or even reach the *os uteri*, without introducing my hand into the vagina. This I thought unnecessary. As there was great anterior protrusion of the abdomen in the hypogastric region, she was placed on her back, and, as that position was not disagreeable to her, she retained it during the labour. The remembrance of what she had suffered during her former labours, caused her to be very desponding in this. She complained so much, as to induce me to administer the ether sooner than I should otherwise have done. From what I had observed in other cases, I had a suspicion that it might modify somewhat the expulsive efforts of the uterus, and I was aware from former experience in her case, that all its powers would be required to overcome the obstruction offered by the contracted superior strait.

With some reluctance she inhaled the ether, commencing at half past five o'clock. It had a stimulating effect, increasing the pulse to 79. Although it was administered freely, it did not produce lethargy, neither did it prevent her from complaining as much as she did before she took it. She talked more during the intervals between the pains, though in a discursive and incoherent manner, than she did previous to the inhalation. The pains were not modified in frequency or duration, and were, if any thing, more violent. The relief which I expected to see follow the inhalation of the ether, not having been obtained, I concluded to discontinue its use. In a few minutes she began to complain more violently than ever, and begged most earnestly for more of the

ether, saying that "it afforded her so much relief." This surprised me. It was, however, apparent on a readministration of it, that her complaints did not evince such suffering and acute anguish, as when she was not under its influence.

A re-examination, *per vaginam*, showed that the labour was progressing, a part of the child could now be felt; but I failed to determine the presentation. It was with difficulty that the anterior margin of the *os uteri* could be felt.

The presenting part descended very gradually into the pelvis, until I was enabled to determine that it was the head, but so distorted and tumefied as to prevent me from discerning the presentation. This eventually proved to be such as to bring the vertex under the arch of the pubis. As the labour progressed, she became very sensible of the relief obtained from the ether, and frequently requested to have the sponge moistened.

She continued to talk incessantly when the pain was off, and when she was most fully under the influence of the ether, she appeared to be in a very happy mood, saying how happy she was, what a blessing it was to have such relief, &c. Among other expressions, she said she had become simple, quite childish, but had never expected to live so long as to become childish.

At a quarter of ten o'clock, the head escaped from the superior strait, and in a few minutes, the child, a boy of medium size, was delivered. Its head was very much elongated and distorted, compressing the brain so much, as to prevent it from showing signs of vitality for a time, but by the use of appropriate means it revived, and eventually did well. The placenta came away in a few minutes, and there was considerable after-pain.

No case has come under my notice, in which more gratitude was expressed for the relief afforded by the ether, and in none has the relief been less apparent. The power of appreciating, and recollecting pain and suffering, appeared to be destroyed by the inhalation, while the ability to evince its presence was still retained. There was, during the greater part of the labour, both before and after the etherization, a repetition of chills, and previous to the inhalation, nausea with vomiting, but none afterwards. The patient convalesced more rapidly, having retained more strength, than on any previous occasion.

CASE 12th.—On the 23d of December, at 2 o'clock, A. M., I saw Mrs. —, aged 31, of Lower Merion, in labour with her third child. She was in the eighth month of her pregnancy, and had been exerting herself in an unusual degree for some days before. An examination showed that but little progress had been made in the labour. I left her for some hours; and when I returned, as there was little prospect of a speedy delivery, I again left her and did not return till 4 o'clock, P. M., when there was a highly favourable change.

The head was presenting, with the vertex to the left of the acetabulum; the membranes were entire, and almost protruding without the *os externum*. As the pains were severe, and she wished it, the ether was administered.

After inhaling for five minutes she was only partially under its influence, as she would not inhale properly. It however afforded her great relief. The pains did not diminish in force or frequency. In half an hour, she was delivered of a female child, which was very feeble, being evidently premature. It moaned for near an hour, and expired. The placenta came away in a few minutes, and there was considerable after-pain, which yielded to a moderate dose of morph. sulph. Convalescence was rapid, and unattended by any unfavourable symptoms. In this case, the patient seemed evidently relieved by the inhalation, at the same time she was aware of the birth of the child, and appeared perfectly conscious. The other children had been premature; this one had lived longer than either of the others.

CASE 13th.—At ten o'clock in the evening of the 2d of January, I saw Mrs. —, aged 30, of Lower Merion, in labour with her third child. She had been seized with pains at 7 o'clock, P. M. At the time I saw her, they were of one minute duration, with an interval of two minutes. The pulse was one hundred in a minute. An examination, *per vaginam*, showed the head to be presenting, and still in the superior strait. The *os uteri* was dilated to the size of a dollar, and dilatable. The vertex was to the left acetabulum.

At twenty minutes past one o'clock, A. M., when the pains had become very severe, and the labour had made considerable progress, the ether was administered. In five minutes she was but

partially under its influence, owing to a reluctance, or perhaps an inability to inhale the vapour, as it occasioned some coughing, and she was afraid it would strangle her; owing to this cause she did not obtain its full effects for some time. Her pulse was not affected in the least, as far as I could perceive. The paroxysms of pain were shortened for a time, being reduced to forty-five seconds, and the intervals between the pains lengthened to three minutes; this state of things, however, was but temporary, for in a little while the pain became almost incessant. Having become aware of the relief afforded by the vapour, she would ask frequently to have the sponge wet with the ether, and would inhale with great earnestness. At ten minutes after two, she was delivered of a female child of small size, but very sprightly. It has done well. The placenta came away in six minutes. The after-pains were very severe, so much so, as to induce me to resort to the ether to relieve them. A few inhalations had a decided effect in modifying them, and relieving her suffering. They recurred again, however, on withholding the vapour. As I could not make it convenient to stay, and did not think proper to trust the patient or her friends with the remedy, I gave a moderate dose of morph. sulph., with directions to repeat it if necessary, and took my leave.

This patient was perfectly aware of what occurred during the time she was inhaling the vapour, still she found great relief from its use, and expressed herself as much pleased with its effects. Her convalescence was very satisfactory.

CASE 14th.—On the seventh of January, at 4 o'clock, P. M., I was requested to see Mrs. —, of Lower Merion, aged 18, in labour with her first child. She had slept none the night previous, owing to lingering pains which annoyed her very much. When I saw her, the pains were tolerably severe, occurring at intervals of five minutes. An examination showed that very little progress had been made in the labour, the *os uteri* not being perceptibly dilated. I left her and returned at 8 o'clock, when there was a highly favourable change apparent. The *os uteri* was well dilated, and the head was presenting, with the vertex to the right acetabulum, and well down in the pelvis. The pains were now recurring, at intervals of one and a half minutes, and were of one minute duration. As she was suffering severely, I proposed using the

ether, when her friends informed me that I had been called on with special reference to its use. It was accordingly administered, and in three minutes a complete lethargy was induced. It had the effect to diminish the frequency of the pains somewhat, and also to lessen their duration.

This effect was most marked, when the lethargy was most complete, but I observed that a sufficient degree of insensibility could be maintained, to prevent suffering, without interfering with the progress of the labour.

In a short time the pains became very active and efficient, the patient being comparatively quiet, and appearing to suffer but little. This was the more remarkable as it was her first labour, and the head was so large as to distend the perineum exceedingly. At a quarter past ten o'clock, she gave birth to a very large female child, which was quite vigorous; being larger than usual, I had it weighed; its weight was nine pounds. The mother had no knowledge of the birth of the child, but regained her consciousness before the placenta came away, which was in eight minutes. She convalesced without an unpleasant symptom.

CASE 15th.—On the 9th of January, at half past 11 o'clock, P. M., I saw Mrs. —, of Blockley, aged 25, in labour with her third child. Her pains had increased gradually since 8 o'clock, at which time they had commenced, till the time of my seeing her, when they were quite severe, recurring at intervals of two minutes. An examination showed the *os uteri* to be well dilated, the head presenting, with the vertex to the left acetabulum, and the membranes entire. The head was still in the superior strait.

After rupturing the membranes, as she was suffering intensely, the pains having increased in force and frequency, the ether was administered.

She commenced inhaling at five minutes of 12 o'clock, when the pains were recurring at intervals of 70 seconds, and were of 35 seconds duration, varying however somewhat.

In two minutes she was under its influence sufficiently to render her unconscious, having no recollection of any thing, till after her delivery. The frequency of the pains was sensibly diminished, and they were not so regular.

When she became fond of inhaling, which she soon did, and induced a complete lethargy, one interval of four minutes occurred between the pains. She appeared to be in a loving mood, kissing very often, her mother-in-law, with whom she lived, and embracing her, wishing to be caressed in return. She would not permit her to cross the room without calling her to come and kiss her, often saying, "my dear mother, I do love you."

The pains were very efficient, and at half past one o'clock, she gave birth to a female child of average size. For fifteen minutes after its birth, she did not seem to be conscious of what had occurred, but on hearing the child cry she asked what it was. She frequently said, "oh, what a queer place I was at, mother, why did not you go with me? It was such a queer place." When I asked her how she felt, she looked at me with a mixture of doubt and astonishment in her countenance, and exclaimed, "oh doctor I thought I saw you there, now I know how it is," seeming to recollect herself. The placenta came away within five minutes. There were no unpleasant symptoms; on the contrary, she said, she had more strength and felt better than she had after either of her other labours. It is usual for ladies to say, that the last labour was harder than any previous one. Her head was clear and free from pain, or any unpleasant sensation, and she convalesced rapidly.

CASE 16th.—January 13th, at 10 o'clock, P. M., I saw Mrs. —, of Lower Merion, age 26, in labour with her third child. She had been in labour several hours, but for the last half hour the pains had been quite severe, and frequent.

An examination showed the os uteri to be dilated, to the extent of two inches, the membranes entire, and the head occupying the superior strait. The pulse was 82 to the minute. After rupturing the membranes, the ether was administered, and in three minutes she was under its influence, so as to remark, "I am going to sleep." When she arrived at this state she would take away the sponge, and cease to inhale, thus failing to obtain as much relief as I could have wished.

The pains were not modified in force or frequency, nor was the pulse affected. The labour progressed rapidly, and at twenty-five minutes of 11 o'clock, she was delivered of a male child of average size, which has done well, being quite vigorous.

The patient several times said she was going to sleep, but did not. On the contrary, she made more outcry, I thought, than if she had had not taken the ether. She once observed that she felt as if she had been drinking. When asked if she was aware of the birth of the child, she said she knew all about it, she had retained her consciousness throughout, but that the ether was a great relief to her. The placenta came away in a few minutes, no unfavourable symptoms occurred, and the mother and child are both doing well.

The foregoing cases exemplify some of the properties of etherization, heretofore noticed by others, and some which seem not to have been recorded. In general, any morbid state was rectified by the ethereal influence, so that nausea and vomiting disappeared, convulsive tendencies were removed, and the pulse raised if previously depressed, and lessened in frequency, if antecedently too rapid.

In most cases, a perfect etherization destroyed the painfulness of labour, even when the patient retained consciousness. In other and rare instances, the sufferings were abated but not removed, even when the intellectual powers seemed lost for the time.

Generally, the duration and frequency of the labour-action were lessened, without any apparent retardation of the usual result of the labour; nor does there seem to have been any unusual proclivity to hemorrhagy in my cases.

On the whole, my trials of ether, as a torture-saving agent, have been satisfactory to me and my patients, and a sufficient number of cases have come under my notice, to justify me in the continuance of the use of a remedy which seems not only to save sorrow and suffering in common cases, but to be doubly useful when there are morbid complications. The extraordinary length of time during which delicate females can bear a strong etherization, seems to me to put at rest, if that has not been done by others, any reasonable doubt of its perfect safety, when used in the simplest manner, by respiring through a sponge.

UNITED STATES MARINE HOSPITALS.

On this subject there is an article, published in "The Boston Medical and Surgical Journal," for December 9th, 1847, which seems to be designed to show, that medical officers in charge of these establishments, and especially the officer in charge of the Marine Hospital at Chelsea, receives a salary very inadequate to the services rendered by him. This is probably true; but the amount now paid for professional services from the Marine Hospital Fund, is much greater than the Fund can bear. It is vain to attempt to augment the pay of the physicians of Marine Hospitals of the United States, until a successful effort be made to increase the revenue of the Fund, or, what would be the same in result, decrease its expenditures.

The author complains that daily newspapers of the Atlantic cities, never publish statements of the general condition of the Marine Hospital Fund. "This is the MARINE HOSPITAL FUND, paid by sailors, who never see published, for their gratification or information, the amount thus increased by their hands, for their support in time of need. By the law regulating Marine Hospitals, each sailor pays his tax of twenty cents a month, for the enlargement of this fund; and yet, *great as must be this sum* (the italics are ours) *thus accumulated, no one knows how much it is, no one knows where it goes, or whence it comes.*" The author of this communication signed, "Thirty-six years at sea," in the subsequent part of his article, speaks of "the last statistical report of Marine Hospitals," and refers to it "to show the excessive defects in a system, whose object should be the judicious expenditure of money earned with much toil, and appropriated to the relief of the sorest wants."

Had "Thirty-six years at sea" carefully examined the statistical reports of the Marine Hospital Fund, from the Treasury Department, he would have perceived, that the expenditures far exceed the receipts of the Fund, and, under existing circumstances, there is no possibility of a surplus, or accumulation. By reference to the reports from the Treasury Department on this subject, any one may know exactly, "how much" the fund "is, where it goes, or whence it comes:" and it may be also inferred that the present

salaries and remuneration paid on account of the Marine Hospitals cannot be increased.

The following table, derived from public documents, shows, for a period of eleven years, the annual receipts and expenditures of the Marine Hospital Fund.

Year.	Receipts.	Expenditures.	Excess of Expenditures.
1836	67,961.02	89,523.94	21,562.92
1837	27,021.24	102,211.34	75,190.10
1838	35,234.52	110,291.23	75,056.71
1839	66,311.83	122,536.31	56,224.48
1840	71,675.91	136,408.64	64,732.73
1841	72,760.20	102,434.14	29,673.94
1842	72,429.36	93,531.68	21,102.32
1843 six months	37,417.18	46,546.95	9,129.77
1844	85,017.71	109,541.17	24,523.46
1845	88,074.34	124,337.17	36,262.83
1846	88,630.60	87,427.23	
	<hr/>	<hr/>	<hr/>
	\$712,533.91	\$1,124,789.80	\$413,459.26
Deduct excess of receipts for 1846			1,203.37
			<hr/>
			\$412,255.89

Average annual receipts for eleven years, \$64,775.81

Average annual expenditures, \$102,253.61

Average annual excess of expend: over receipts, \$37,468.71

It will be observed, that during the past four or five years, the average annual excess of expenditures over the receipts is gradually decreasing, owing most probably to improvement in the economical administration of the fund.

It must be apparent, however, that the finances of the Marine Hospital Fund will not bear increased expenditure under any head. For the present year (1847) the receipts may be estimated at \$95,000, and the expenditures at \$105,000, leaving a deficit of \$10,000.

It may be reasonably asked, how are these deficits made up? At this time, it is sufficient to reply, by Congressional appropriations.

"Thirty-six years at sea" asks, "How is this money ex-

pendent? Its object is medical treatment; and considering the large class of persons calling for this treatment, the demand made upon the medical officers in the institutions must be very great, and every reasonable man would say they should be paid accordingly. The domestic affairs of the hospitals should by no means be neglected, but the main object of their establishment being the healing of the sick, this should be the primary aim, and this branch most liberally sustained. What is the truth on this score? By a comparison of the duties and emoluments of marine and naval hospitals, we may arrive at some knowledge of the pecuniary condition of their respective medical officers. There are in Chelsea, Massachusetts, two hospitals, the Naval and Marine, affording means for carrying out our illustration. The surgeon of the Marine Hospital has a salary of \$1000 per year, without the allowance of any assistant on the part of the government; the surgeon of the Naval Hospital, if he be from ten to fifteen years standing in the service, has \$2000, and the advantage of an assistant, with a salary of \$950 per year; thus rendering the medical attendance of the Naval to exceed that of the Marine Hospital by \$1950. Let us now compare their duties. The Naval Hospital rarely numbers more than ten patients daily, who can avail themselves of the double amount of medical attendance allowed them." The Marine Hospital for the last quarter averaged more than sixty patients daily.

From these data and these arguments, it is very clear that the physician of the Marine Hospital is not fairly remunerated for his labours. No member of the profession will say the pay is equivalent to the services rendered; but so long as the finances of the Marine Hospital Fund remain as at present, and so long too as a professional man, properly qualified, can be found ready to do the work for \$1000 a year, it would be regarded as very questionable policy, to say the least, to increase the physician's salary. It is an axiom, very commonly observed in practice, never to pay more for an article or for services than is asked. Goods and services are worth what they will fetch, but no more.

The unquestionably low pay of the physicians in charge of Marine Hospitals of the United States, is not attributable so much to the Commissioner of the Marine Hospital Fund, whose aim is, or should be, to obtain as much for the money expended as possi-

ble, as to the state or condition of the profession itself. The members of it are very numerous; they are more than readily find employment; consequently, competition is very great, and it is presumed that the Commissioner of the Marine Hospital Fund, has always a choice among several *well recommended* competitors for every vacancy in Marine Hospitals. Probably these circumstances, rather than the amount of labour required, determine the rate of physicians' salaries in these institutions. It is poverty or the *res angusta domi*, which unhappily pertains to a very large proportion of graduates in medicine, which compels so many to give their services at half-price. What gentleman would give his time and labour to any institution for \$1000 yearly, if he could command more for his services in private or other practice?

We repeat our opinion, that a thousand dollars a year is less than half the value of the services which a competent physician is capable of rendering, while in charge of a hospital, containing an average of sixty patients; \$2500 would not be more than a fair compensation for the labour, professional and pecuniary responsibilities, of such an institution. But under existing circumstances, the Commissioner of the Marine Hospital Fund obtains medical services, as he would goods at an auction; not at their intrinsic, real worth, not at prime cost even, but for the lowest bid the auctioneer will accept. The Commissioner finds that \$1000 a year is an ample bid, for the competition is so great that it commands not only medical, but in some instances also political party services in the bargain. This is not true as to medical appointments in Marine Hospitals exclusively. We find that not long since, political considerations influenced medical appointments in several of the medical charitable institutions in New York. Recently, however, the hospitals at Bellevue, Blackwell's Island, and the Lunatic Asylum, (New York,) have been placed on a different system of management. "We rejoice heartily," says a newspaper of the time, "that one of the first provisions of this new arrangement, is to exclude political considerations entirely in the choice of medical officers. Moral rectitude and professional capacity alone will be the test. In almost any profession, except medicine, a person may meddle with politics without any detriment to any one save himself; but every one knows that a political doctor is rarely overburthened with practice, as people are

naturally shy of intrusting their lives to a person who spends his time in pursuits totally foreign to that profession which is to save them from death. It has hitherto been a blot on our public hospitals, that mere politicians were rewarded with stations in them, which required great professional acquirements to fill in a proper manner."

Let us return to the statement of "Thirty-six years at sea," quoted above. He exclaims, speaking of the comparative reward of the management of the domestic affairs, and medical administration of Marine Hospitals, "What is the truth on this score?" We repeat, What is the truth?

We believe "Thirty-Six Years at Sea" has fallen into errors, and from erroneous data has drawn incorrect inferences. He says, "the surgeon in the Naval Hospital, if he be from ten to fifteen years standing in the service, has \$2000." "What is the truth on this score?"

A surgeon in the navy of from ten to fifteen years standing, when employed on shore, receives \$1750, and not \$2000, as above stated. For the information of our readers we give the following statement from the pay table, published in the official Navy Register for 1844.

	Pay per Annum.
Surgeons for the first five years standing, on shore duty,	\$1250
" " second five; between five and ten years,	1500
" " third five; between ten and fifteen,	1750
" " fourth five; between fifteen and twenty,	2000
" " twenty years and upwards,	2250

But in order to obtain even the lowest rate of pay as surgeon, the officer will have served in the navy at least ten years as assistant; to receive the highest rate he will have been in the navy and of the profession for thirty years and upwards. It is a very long time, to look forward through thirty years—and one half of the time from a ship's deck at sea—to reach an income of \$2250 annually for important professional services in a hospital. And this is the highest remuneration paid to a medical officer in charge of any hospital of the navy; at New York, Norfolk (Va.), and at Pensacola, the daily average sick list the year through is probably not less than 80. At New York recently, the sick list numbered 150 cases under treatment; and in the Naval Hospital at Chelsea, there has been as many as 70 cases.

The pay of medical officers in the navy, which by the way is smaller proportionately than that of any other grade, all things considered, is not regulated by the number of cases under treatment or the amount of responsibility, whether professional or pecuniary, but by the number of years the officer has served; so that the increase of pay is not so much a compensation for what he is actually doing, as for what he has already done, for small remuneration. There are very few competent, well educated physicians, it is hoped, who are not in the receipt of \$2250 annually, after labouring in the profession for thirty years. If there be many, they have toiled to little profit, and they might have gained more, with less labour, in some other avocation.

The physicians of marine hospitals in the United States, it is believed, are generally changed with every administration of the general government at Washington. They serve no apprenticeship in the service; consequently, their remuneration cannot be well compared with that of medical officers either in the army or navy. It does not follow that because a surgeon of twenty years standing in the navy is accidentally in charge of the Naval Hospital at Chelsea, receiving \$2250, that the physician of the Marine Hospital at the same place should receive more or less; nor would it follow that because a surgeon of less than five years' standing in charge of the Naval Hospital at Chelsea receives but \$1250, that the physician of the Marine Hospital should not receive \$2500.

Those acquainted with the subject will concur in the following opinion of "Thirty-Six Years at Sea." He says: "The whole system needs re-modelling; and by means of the present resources and the increasing demand in the country, as our ports are multiplied on every shore, lake and river, a splendid arrangement of hospitals might be made, which would be creditable to the nation, blessings to the sick sailor, and fine schools for the advancement of medical science." But this writer proposes no plan.

Having pointed out the financial condition, which seems to preclude any increase of remuneration for medical services, we propose to describe briefly the present state and system of administering the affairs of the Marine Hospital Fund, and then submit a plan which would remedy the defects, although it may not satisfy the objects of "Thirty-Six Years at Sea."

Under authority of a law of July 16th, 1798, twenty cents are monthly deducted from the wages or pay of all sea-faring people, except those employed in fishing vessels; and under the provisions of this act, all who pay the tax are entitled to "temporary relief and maintenance" in hospitals when sick or disabled. But the law does not contemplate relief or maintenance for those who may be incurable or permanently disabled; it provides only temporary relief for curable cases.

During the first few years after the institution of the Marine Hospital Fund, contracts were made, under the direction of the Treasury Department, by collectors of the customs, with city hospitals or almshouses, where they existed, and where they did not, with private individuals and physicians, for subsisting and attending such sick or disabled seamen as might claim from the collector the benefits provided by law. The nature and quality of the accommodations procured by collectors varied at different ports, and were afforded at different rates of charge, being much higher in southern than in northern ports, as a general rule: and the degree of comfort afforded to the sick sailor was as unequal as the prices paid, but never in proportion. From the manner of its financial administration—from a defective mode of collecting or disbursing the fund, or both—the expenditures from the Marine Hospital Fund were generally much greater than its receipts. It may be said to have been always in arrears; but not always so largely as the statements of the past ten or eleven years indicate, as may be seen on a preceding page.

After some years had elapsed, the plan of erecting buildings at different points, for marine hospitals, to be under the control of the Treasury Department, was begun, and appropriations were made by Congress, from time to time, to assist the Fund in executing the project.

Up to the present time, ten marine hospitals have been authorized by law. Of the whole number six are in operation, as follows: at Chelsea, Mass.; at Norfolk, Va.; at Ocracoke, N. C.; at Charleston, S. C.; at Key West, Fla.; and at Mobile, Ala.: the four others authorized are building at New Orleans; at Louisville, Ky.; at Pittsburg, Pa.; and at Cleveland, Ohio.

At Charleston, S. C., the Marine Hospital building of the United States, under an arrangement with the Treasury Department, is

managed by the municipal authorities of that city, and seamen relieved at a specified rate of compensation, namely, in 1843, sixty cents daily per head, for subsistence, medical attendance, medicines, &c. ; clothing and funeral charges are extra.

By the acts of July 16, 1798, and 3d of May, 1802, the Secretary of the Treasury is, *ex officio*, Commissioner of the Marine Hospital Fund ; the business of it is attended by one of the clerks in his office.

Collectors of the Customs are employed as agents in collecting the fund, and making disbursements for authorized purposes ; their accounts are settled by the First Auditor, and Comptroller of the Treasury. A commission of one per cent. is allowed to collectors, on disbursements from the Marine Hospital Fund.

The physicians of Marine Hospitals are appointed by the Secretary of the Treasury, and hold their office during his pleasure. The stewards and other subordinates, are appointed by Collectors, at rates of compensation subject to the approval of the Secretary of the Treasury. The hospital supplies are obtained by contract, but, it may be supposed, the arrangement places considerable patronage at the disposition of the head of the Treasury Department and of Collectors, if they be pleased to avail themselves of it for political purposes.

The physicians of Marine Hospitals receive an annual compensation of \$1000 ; except at Norfolk, Va., and Ocracoke, N. C., where they are paid only \$840 ; they receive neither perquisites nor emoluments of any kind.

The revenue of the Marine Hospital Fund is made up exclusively from the twenty cents deducted from the monthly pay of seamen registered for foreign commerce, and enrolled for the coasting and inland trade on the rivers and lakes.

It has been estimated that the number of persons employed as seamen and boatmen, including those engaged in the cod, whale, and other fisheries, is not less than 160,000. If all of these men were employed throughout the year, the Marine Hospital Fund would be entitled to receive from each man and boy \$2 40, or an aggregate of \$384,000 yearly. But the estimated receipts for 1847, amount only to \$95,000, which is the sum derivable from 39,583 men and boys, employed afloat throughout the year. If there be 160,000 individuals employed afloat, it is evident, that they are under pay,

on an average, less than one-fourth of their time, not three months, or the Collectors fail to obtain about three-fourths of the amount due to the Marine Hospital Fund.

It cannot be reasonably supposed that all our foreign commerce, coasting-trade, and navigation of the lakes and rivers, are conducted by so small a number of persons employed afloat as 40,000, which is about the number indicated by the receipts of the Marine Hospital Fund. Nor is it probable that sea-faring people gain a livelihood by being employed only one-fourth of their time. Is it not reasonable, therefore, to suppose, there is some defect in the system of collecting the Marine Hospital money?

From public documents* we learn that in the year 1845, the number of seamen relieved by the Marine Hospital Fund was 7918, of whom 252 died. There was expended on account of the whole, for subsistence and nursing \$92,928 96; for medical services \$11,148 52; for medicines \$4,718 24; for clothing \$422 60; for travelling expenses \$328 49; for funeral expenses \$891 50; for other charges (including the payment of an old claim,) \$13,898 86, making an aggregate of \$124,337 17. This statement enables us to understand the various purposes for which the fund is expended, and seeing that the receipts for that year were only \$88,074 34, we see why that portion of the act of July 16, 1798, which directs all surplus of receipts over expenditure, to be invested in securities of the United States, becomes a dead letter.

To understand the whole subject, it is now necessary to speak of the Navy Hospital Fund, which is an entirely distinct institution.

The act of March 2, 1799, required all persons in the naval service to pay twenty cents monthly into the Marine Hospital Fund, and gives to them a right to the "same benefits and advantages" as provided for sick or disabled seamen, by the act of July 16, 1798. Although no one in the naval service ever participated in the benefits of the Marine Hospital Fund, the monthly tax continued to be paid until the 26th February, 1811, when a law was enacted instituting the Naval Hospital Fund, for the foundation of which \$50,000 were drawn from the Marine Hospital Fund, being the amount estimated to have been paid by the navy into it, between the years 1799 and 1811. Under the law of Feb. 26, 1811, the Naval Asylum was erected.

* House Doc., No. 45. 1st session 29th Congress.

The sources of revenue to the Naval Hospital Fund, are the twenty cents monthly deducted from the pay of every person in the navy, and the undrawn rations of the sick, estimated at twenty cents daily per head. Other sources should be added. Interest arising from investment in securities of the United States, and all the personal property of deserters, and all balances due to dead men, should be invested on account of the Navy Hospital Fund, until claimed by legal heirs.

At present the revenue of this fund may be estimated at about \$10,000 annually, and although all the current expenses of the Naval Hospitals are paid from it, the surplus on hand amounts to about \$200,000. The investment of this fund was suggested in 1844, by the Hon. John Y. Mason. It has been computed that up to 1842, the loss in interest for the thirteen preceding years was \$79,980 99, or an annual average loss of \$6,152 38.

It is estimated that the average cost of maintaining the sick under the present system by the Marine Hospital Fund, is three dollars weekly per head.

At the Naval Hospital, New York, the daily average number of sick for the year ending June 30, 1845, was 80, and the largest number at one time was 117. The daily average cost per man for food, medicines, hospital stores, groceries, &c., was sixteen and a half cents; and including wages of all attendants, (except the pay of the surgeon and assistant surgeon,) and the cost of fuel, lights, &c., the daily average cost per man does not probably exceed thirty cents a head daily, or \$2 10 per week, or about one-third less than the cost to the Marine Hospital Fund.*

With the view to equalize the expenditures and receipts of the Marine Hospital Fund, it is proposed,

First. To receive merchant seamen, when sick or disabled, into naval hospitals where there is no marine hospital of the United States, at a charge of thirty cents daily, to be paid from the Marine Hospital Fund.

Second. To place medical officers of the navy in charge of the Marine Hospitals.

Third. To lay a small tonnage duty on all American vessels; on

* Rep. No. 48, sick and disabled seamen. House Rep. 29th Congress, 2d session.

vessels engaged in coasting trade, say five cents per ton yearly, and on vessels employed in foreign commerce, ten cents per ton for every voyage, to be paid into the Marine Hospital Fund.

Fourth. A tonnage duty of five cents per ton, to be collected from foreign ships on every entry and clearance at a Custom House of the United States. In consideration of which, provision might be made for the admission of foreign seamen in our hospitals on the payment of fifty cents a day. Further, this tonnage duty, and the investing of the fund, would enable the Executive to provide permanent relief, in the naval asylums or marine hospitals, for all merchant seamen who had paid during twenty entire years, the twenty cents a month hospital money.

The first proposition is to admit seamen of the commercial marine into naval hospitals. Can this be done without interfering with the accommodations designed for seamen of the navy in naval hospitals? At Boston, or rather at Chelsea, there is a marine hospital; therefore, the naval hospital at that station might remain for the navy exclusively.

At New York there is no marine hospital of the United States; the daily average number of sick merchant seamen relieved by the marine hospital fund is, say, one hundred. They are at present accommodated in the New York City Hospital, at the rate of three dollars a week, for subsistence and medical attendance; some extra charges are also admitted. The average number of seamen of the navy, so long as the navy does not employ more than 10,000 men, in the naval hospital on that station, will not exceed eighty; therefore, the daily average aggregate would be 180. By erecting quarters for the accommodation of the medical officers on the grounds, instead of lodging them in the building, as at present, the hospital can shelter 250 patients and the necessary subordinate attendants. By making an addition of 100 to the average number of patients, a corresponding increase of attendants would not be necessary, because with an average of 50 patients, there is required a steward, matron, apothecary, two cooks, two washers, a ward-master, and four nurses. An augmentation of the number of patients to 250, would require a corresponding increase only in the number of nurses and washers, or, in round numbers, six washers and fifteen nurses would be ample for properly attending upon the whole. For an addition of four washers at \$120 a year each, would be \$480;

four chief nurses at \$180 each, would be \$720, and of five assistant nurses at \$120, would be \$600, or an aggregate of only \$1800: or, to cover all extra expenses on account of wages, say \$2500, would be required. If the daily average cost be $16\frac{1}{2}$ cents for subsistence and medicine with an average sick list of 80, there is no doubt it would fall to ten or twelve cents with an average list of 180—because, experience shows, that the larger the average number of patients, the smaller is the rate of expense. There is no necessary increase of the expenditure of fuel, with the increase of patients, because the building is warmed throughout, no matter whether it contains 50 or 150 patients.

At Philadelphia the average number of merchant seamen in the Pennsylvania Hospital does not exceed twenty; and the naval hospital, under the same roof with the naval asylum, will readily accommodate more than double this number in addition to the sick of the navy.

At Norfolk, Va., there is a marine hospital of the United States; therefore, the naval hospital there would not be required.

At Pensacola, there is no doubt, but the very few merchant seamen relieved under the Marine Hospital Fund, could be received into the naval hospital without inconvenience. According to the reports from the Treasury Department, the number of merchant seamen relieved at that port does not exceed two, yearly.

Consequently, the proposition does not involve the necessity of making any enlargement of the naval hospital buildings.

It may be objected that the mingling of merchant and naval seamen together when sick, would disturb the discipline of naval hospitals. This objection has little force, because the medical officer in charge of a naval hospital would necessarily possess the same powers of control over merchant seamen, as the superintendents of the civil institutions which now accommodate them. In the latter, merchant seamen find their interests best consulted by obedience to their regulations, because expulsion is the penalty of improper conduct. Seamen serve alternately, in many cases, in the navy and commercial marine.

It may be objected, that, in large cities, sick seamen constitute a large class of the patients in the city hospitals, visited by students of medicine for clinical instruction, and to withdraw them altogether in the manner proposed, would lessen the means of public instruction

to the medical schools. This circumstance should operate in favour, rather than against the proposition, because, men who pay heavily, considering their resources, for being taken care of when sick, should not be forced to exhibit their misfortunes or diseases to the public gaze, in part payment for treatment, or to the profit of professors, of science, or of the institutions in which they may be placed. Paupers in this way partially pay for their accommodation in almshouses and hospitals; but seamen should not be regarded or treated as paupers when sick, simply for the reason that they are compelled to pay for proper relief and maintenance. The fact that sailors are improvident, has been made a reason for taxing them when well, in order that they should be taken care of when sick; but it surely is not just after this to impose on them a further tax on their feelings, by requiring them to exhibit their diseases in public, to benefit science or anything else. But, in fact, as far as science is interested in the question, nothing would be lost, because the medical officers of the navy employed in naval hospitals, would be improved by the enlarged experience the proposed plan would give them.

No change in the administration, or rather in the mode of disbursing the naval hospital fund, would be necessary, consequently, upon entertaining merchant seamen in naval hospitals. The charge of thirty cents a head daily would be paid by the *marine* hospital fund, and of course received by the *naval* hospital fund; the two funds would be kept distinct, as at present.

The second proposition is to place marine hospitals in charge of medical officers of the navy. A similar proposition was made by the Hon. Levi Woodbury, when Secretary of the Treasury, in a report to the Senate, dated December 11, 1837.

It may be objected, that, to carry the suggestion into practice, would require an increase in the number of surgeons. According to the Navy Register of 1847, there are sixty-nine surgeons; of this number there are forty-seven employed afloat and on shore, leaving twenty-two unemployed. Many of these are but recently from sea; and several are disabled by age or infirmity, but little doubt is entertained that of this number six surgeons can be found both competent and willing to take charge of the six marine hospitals now in operation, including that at Charleston, S. C. Of the sixty-nine surgeons, thirty-three have been commissioned as surgeons more

than twelve years, and are classed with commanders in the navy. These, then, being generally men advanced in life, might be regarded by the Navy Department as exclusively eligible to serve as Fleet surgeons, and as chiefs or superintendents of naval or marine hospitals, leaving those surgeons who are classed with lieutenants in the navy, to be assigned for duty to single ships at sea, and to navy yards, rendezvous, and "receiving vessels" in the United States.

At present there are six squadrons, each requiring a surgeon of the Fleet; there are five naval hospitals, and adding six marine hospitals, there would be eleven hospitals, or eleven shore stations, (besides the Medical Bureau) to be filled; in other words, six places at sea, and twelve on shore, eighteen in all, to be occupied by thirty-three of the older surgeons.

Of the class of sloop-of-war and upwards, the force afloat in 1847, required eighteen surgeons, exclusive of surgeons of the fleet. There are, including the stations at Baltimore and Memphis, nine navy yards; five rendezvous, and four "receiving vessels," or eighteen shore stations, making the number of places afloat and ashore for surgeons of less than twelve years standing equal, or thirty-six in all.

From the above rough estimate it may be safely conjectured that no necessity to increase the number of surgeons in the navy, would arise from adding six or even ten to the present number of *shore* stations. It may be remarked also, that men who have become too infirm for active service afloat, would nevertheless cheerfully discharge the duties of a hospital surgeon, because in the latter occupation, they are not exposed to the privations and vicissitudes incident to a sea-life.

It has been objected also, by respectable medical officers in the navy, that adding the charge of marine hospitals to the present duties of Naval surgeons, would merely increase their labours without augmenting their remuneration; that those who work most industriously and skilfully enjoy no more consideration than those who are satisfied to do no more than is absolutely required in the naval service; that the proposition is calculated to outrage professional courtesy, because, if adopted, it necessarily must displace the *five* members of the medical profession who are now in charge of the marine hospitals; that marine hospitals are as well managed,

professionally and financially, as naval hospitals. Of course those members of the naval medical corps who have avowed these views in a memorial, will still be opposed to any change or any improvement, if it increase their own cares and responsibilities, which is designed to benefit the whole body of merchant seamen; their sense of professional propriety is so keen, that rather than see any *five* gentlemen forced from public employment into private practice, they would forego the possibility or probability of adding to the comfort, the benefit of no less than 160,000 of their fellow citizens. In their opinions, the interests of *five* medical men are paramount to the interests of 160,000 American sailors! Is it necessary to examine the question, whether it is the interest of American sailors who pay "hospital money," to reduce the expenditures of the Marine Hospital Fund, and at the same time improve and extend sick accommodation for them? Is it, in this connexion, necessary to examine the question, whether Congress shall, year after year, appropriate from ten to thirty thousand dollars to meet deficits in the Marine Fund, in preference to passing an act which might be construed into an act of discourtesy towards *five* gentlemen, members of the medical profession? In these remarks, the writer disclaims all ideas of disparaging, in any respect whatever, the physicians of marine hospitals of the United States.

Even admitting that marine hospitals are better conducted in every respect than naval hospitals, (which may be a question not difficult to decide,) it is no reason why medical officers of the navy should not be placed in charge of marine hospitals; but it might be urged, on the contrary, as a reason why naval hospitals should be placed in charge of physicians, selected from among citizens, without any test of qualification, except that derived from introductory letters from the hands of interested friends of the same political party, no matter whether whig or democrat.

The propriety of the suggestion made cannot, and does not, rest on the result of a comparison of the management of marine and naval hospitals; or on the comparative qualifications of surgeons of naval hospitals and of physicians of marine hospitals. It is as absurd as it would be to argue that, because the physician of the marine hospital at Chelsea is a handsomer or taller man than the surgeon of the naval hospital at New York, it is manifestly improper to

make medical officers in the navy eligible to the management of marine hospitals!

It is believed that the competency of surgeons of the navy to serve in marine hospitals will be conceded; that the system of examinations to which they are subjected has given an efficient body of medical men to the navy, who will compare favourably with the mass of citizen practitioners, graduates or not. The recent medical convention has sprung from the—too long continued defective plan of manufacturing, so called, doctors; and public opinion must sustain the views expressed by that body on this important subject. To attain a thorough knowledge of the science of medicine and surgery is not an easy task; but to facilitate those who are satisfied with the name, medical schools have given their diplomas, certificates of ability, to imperfectly educated men, and boast of the number, rather than of the qualifications of their graduates. This has jeopardized the respectability of the medical profession, by bringing members into it who are not respectable because, they lack professional knowledge. “It is much easier,” says a distinguished professor, “to win spurs in the barbarian contests of war, than to gain triumphs in the more glorious fields of science and of art.” This truth must be evident on scrutinizing the pretensions of the great mass of practitioners, licensed and unlicensed; graduates and licenciates. The diploma has ceased to be a guarantee of qualification, and for this reason, medical men are not received into the army or navy, without careful examination.

Professor Jackson, of the University of Pennsylvania, in his introductory lecture delivered in October, 1847, holds the following language on this subject—“The students themselves will soon feel its influence (reform in medical education,) and acknowledge that it will be for their own interests. They will find that public respect and confidence, on which their success in practice depends, as public opinion becomes enlightened, will be withheld from the illiterate and uninformed, and can be obtained only by those who are well educated and thoroughly instructed. The army and navy medical boards have already shown to them, that the low standard of the medical schools does not give the requisites of a well educated practitioner; and that the diploma, conferred with little discrimination, is no evidence of qualification. The public, taught the lesson, begin to adopt the same opinions. Every practitioner

now feels that it is not on his vouchers he is to rely, but that the position he occupies must depend on the evidences he gives of his intelligence, general education and proficiency in his science."

The third proposition is to impose a small tonnage duty on all American vessels, to be added to the Marine Hospital Fund; and the fourth proposition is to impose a similar duty on foreign vessels, and give their crews, in consideration of it, a right of admission when sick into our hospitals. Should such a tax be imposed, United States Marine Hospitals might be established in some of the distant ports most frequented by American ships. Such an institution at the Sandwich Islands, or at some neighbouring point, in the Pacific, would be of inestimable advantage to Americans, engaged in the whale fishery?

It may be objected, in these days of ultra "Free Trade" principles, that such a tax would be injurious to commerce; but we beg to express our most decided opposition to any dismemberment of the sentiment, which was borne aloft in the battle and on the breeze:—"Free trade and Sailors' rights." We hold that among the latter should be included a right to protection, relief and maintenance, when sick and disabled.

The Marine Hospital Fund has never been equal to the demands against it, and some means of rendering it sufficient must be devised. When Congress appropriates money to meet the deficiencies of the Fund, it virtually imposes a tax, to the extent of the appropriation, on all classes of our citizens for the benefit of one class. Seamen themselves cannot be taxed more than they are at present. It seems only just, then, that those who are most immediately benefitted by their labours, should contribute something from their prolific revenues, to support the poor and destitute sailor, who has no claims on any municipality for relief. Our sailors are the life of commerce, for without them our ships must rot at our wharves instead of traversing every sea, and returning as richly freighted galleons and argosies from every clime, pouring wealth into the coffers of our merchant-princes at home. A tax of twenty cents a month, at the rate of more than two per cent per annum on their income, is imposed upon them because they are poor, improvident, and peculiarly liable to misfortune—for these reasons, this class of our fellow citizens is compelled by law to provide for its own poor. But alas! the number of poor and destitute sailors is greater than

the contributions of seamen themselves can properly provide for. Therefore, let ship owners be required to contribute something towards the comfort of fellow-beings who have lost health, and risked life, while engaged in perilous labour, designed in its results to make them rich.

Next, it is suggested that all subjects, no matter what may be their nature, pertaining to nautical medicine, naval or commercial, be placed under the control of the chief of the Bureau of Medicine and Surgery in the navy department. Let him be the sole commissioner of both the naval and marine hospital funds, and place in his office the clerk of the navy hospital fund, and the clerk of the marine hospital fund, at present in the treasury department. The Collectors of customs would make the same reports touching the marine hospital fund, they do now, but instead of directing them to the Secretary of the Treasury, they would address them to the chief of the Bureau of Medicine and Surgery in the navy department, from whom they should be required to receive and execute instructions relative to sick and disabled seamen. This would relieve the secretary of the treasury of a portion of his onerous duties, and also take something from the labours of the secretary of the navy. The chief of the Medical Bureau should be then required to report annually, through the Secretary of the Navy, to Congress the condition of both funds, showing the receipts and expenditures in detail. He would not be independent of the Secretary of the Navy, but be as much a subordinate as the Commissioner of pensions.

The following is a project of a law or bill which would effect the necessary changes, and lead to a satisfactory and systematic administration of both Hospital Funds.

It is believed that such a law would leave seamen nothing to justly complain of. But it will not answer to leave out any section of the proposed bill, because all its parts are mutually dependent, and necessary to accomplish the objects in view:—

A BILL FOR THE RELIEF OF SICK AND DISABLED SEAMEN.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the passage of this act, all marine hospitals of the United States, shall be, and are hereby declared to be, under the direction and management of the chief of the Bureau of Medicine and Surgery in the navy department, and the superintendents and physicians of said marine hospitals shall be selected and appointed, from among the surgeons and

assistant surgeons in the navy, in the same manner as the superintending surgeons and other officers are selected and appointed in naval hospitals of the United States.

SEC. 2. *And be it further enacted*, That Collectors of ports, in collecting districts in which naval hospitals exist, but in which there is no marine hospital of the United States, are hereby authorized and directed to grant admission to all sick and disabled seamen, who may be entitled to the benefits of the Marine Hospital Fund, into the naval hospital nearest to, or within the limits of their districts respectively; and it shall be and is the duty of the chief of the Bureau of Medicine and surgery to direct the superintendents and surgeons of said hospitals to receive all sick and disabled seamen who may present satisfactory certificates of admission from the collector of the port, and to provide for them in the same manner as sick and disabled seamen and marines are provided for in naval hospitals, according to the laws and usages of the navy.

SEC. 3. *And be it further enacted*, That a sum not exceeding thirty cents daily, shall be paid from the marine hospital fund to the navy hospital fund, for every sick or disabled seaman, admitted into any naval hospital by authority of the collectors of ports, for every day such merchant seaman may be maintained at the cost of the naval hospital fund, *provided* that clothing furnished to patients, and funeral expenses, shall not be included in the daily charge of thirty cents for maintenance and medical treatment.

SEC. 4. *And be it further enacted*, That the chief of the Bureau of Medicine and Surgery shall, in those collection districts in which there is no naval or marine hospital of the United States, provide suitable accommodations and attendance, either in private houses, or in hospitals, for such sick or disabled seamen, as may be entitled to the benefits of the marine hospital fund.

SECT. 5. *And be it further enacted*, That all American vessels employed in the coasting trade, or in the commerce of the lakes or rivers of the United States, shall pay to the marine hospital fund at a rate not exceeding five cents a ton yearly, according to their number of tons respectively; and all American vessels employed in commerce with foreign countries, shall pay to the marine hospital fund at a rate of not exceeding ten cents the ton, according to their number of tons respectively, whenever any such vessel shall be entered, and also whenever any such vessel shall be cleared at any custom house of the United States.

SECT. 6. *And be it further enacted*, That any sea-faring person who may be disabled by disease, age or injury, on producing satisfactory evidence that he has paid into the marine hospital fund, or naval hospital fund, at the rate of twenty cents a month for a period not less than twenty entire years, shall be, and is hereby entitled to permanent relief and maintenance in any marine or naval asylum, or hospital of the United States, under the laws and usages of the navy.

SECT. 7. *And be it further enacted*, That all foreign vessels shall pay to the marine hospital fund, at a rate of not exceeding five cents a

ton, according to their number of tons respectively, whenever any such vessel shall be entered, and also whenever any such vessel shall be cleared at any custom house of the United States, and in consideration of the payment of this duty, foreign seamen may be admitted to the temporary benefits of the marine hospital fund, *Provided*, that masters or consignees of the foreign vessel to which they belong, or the foreign consul having control or supervision of their interests, shall pay to the marine hospital fund not less than fifty cents daily for every such foreign seaman who may be admitted into any hospital of the United States, while he may be entertained in any of said hospitals.

SECT. 8. *And be it further enacted*, That the commissioner of the marine and navy hospital funds is hereby authorised to provide proper and suitable accommodations and treatment in hospitals or otherwise, for sick or disabled American seamen, in such foreign ports as he may think desirable, *Provided*, that the consent of the proper authority in such foreign port be first obtained.

SECT. 9. *And be it further enacted*, That at the expiration of one year after the death of any and all persons who have died or may hereafter die intestate, while in the navy of the United States, the Fourth Auditor of the Treasury Department shall place to the credit of the navy hospital fund all moneys or balances which may be due by the government to said deceased persons, and unclaimed by their legal heirs; and likewise all balances which may be due to deserters from the navy by the United States; and said moneys or balances shall be, and are hereby declared to be, the property of said navy hospital fund, until legal heirs shall appear. And the commissioner of the navy hospital fund is hereby authorized and directed to invest the said fund in securities of the United States, and also all moneys accruing to said fund in future, excepting so much thereof as may be required for the erection or necessary extension and repairs of hospital buildings and tenements, and the maintenance of naval asylums and hospitals for the use of the navy.

SECT. 10. *And be it further enacted*, That the chief of the Bureau of Medicine and Surgery in the Navy Department shall be, and is, the sole commissioner of the navy hospital fund, as well as of the marine hospital fund, and it shall be the duty of the said commissioner to invest all surplus moneys belonging to the marine hospital fund in securities of the United States, and also to report annually, to both houses of Congress, the condition of the navy hospital fund and of the marine hospital fund for the fiscal year next prior to the date of said report.

SECT. 11. *And be it further enacted*, That a clerk of the navy hospital fund, and a clerk of the marine hospital fund, shall be allowed in the Bureau of Medicine and Surgery, and the chief of the Bureau of Medicine is authorized to receive from the Treasury Department, and also from the Navy Department, all books, papers, &c., appertaining to the marine and navy hospital funds.

SECT. 12. *And be it further enacted*, That the commissioner of the navy and marine hospital funds is hereby authorized to receive property of any description which may be devised or bequeathed to either

fund, and apply the same as the said funds are by law directed to be applied and appropriated.

SECT. 13. *And be it further enacted*, That all acts or parts of acts, contrary to the provisions of this act shall be, and are hereby repealed; *Provided*, that no treaty of amity and commerce with any foreign nation shall be affected.

According to this project of a law, marine hospitals are placed under the supervision of the Bureau of Medicine and Surgery of the Navy Department, and in charge of medical officers of the navy, under the same rules which apply to naval hospitals. The effect of the first section of the law would be, supposing that ten marine hospitals are in operation, to relieve the Marine Hospital Fund of say \$1000, yearly, on account of each, or \$10,000 annually. But it would require an increase of the naval appropriation, under the head of pay, to an amount not exceeding \$3,500—or the difference between shore duty, and “waiting orders” of ten surgeons.

The second and third sections provide for admitting merchant seamen into naval hospitals; and the fourth, for taking care of them in private houses or hospitals, at those ports where there are no hospitals of the United States.

The fifth section provides for an increase of the revenue of the Marine Hospital Fund. It will be safe to estimate that there are 1,500,000 tons of American shipping employed in the home trade, which, at five cents the ton, would yield, say, \$75,000 annually. In the year 1845, the number of tons of American shipping “cleared” for foreign commerce was 2,053,977, and the number of tons “entered” was 2,035,486 tons, or an annual aggregate of, say, 4,089,463, or, in round numbers, 4,000,000, which, at ten cents the ton, would be \$400,000; or, if we say five cents the ton, \$200,000. This, then, after deducting the expenses of collection, would add to the revenue of the Marine Hospital Fund about \$250,000. This increase would be sufficient to carry into effect the sixth and eighth sections of the bill.

The foreign tonnage “cleared” at American custom houses in 1845, was 930,275 tons, and the number of tons “entered” was 910,563—or an aggregate of 1,840,838—or in round numbers, say 1,500,000, at five cents the ton, would yield 75,000 annually to provide for sick and disabled foreign seamen in our hospitals.

The remaining provisions of the bill seem too plain to require explanation.

At present, the revenue of the Marine Hospital Fund is so small, that the period of "temporary relief and maintenance" is limited to four months in all cases; and further, the sick list is, at some ports, restricted to a fixed number. When the sick list is full, applicants, no matter what their condition may be, must wait for vacancies, or discharges of those previously admitted into hospital. Members of the profession will perceive that in cases of phthisis, for example, that the period of limitation may be much too short; such cases, after having been in hospital four months are discharged, and become a charge on some one of the municipal charities of the port. This is equally unjust, both to patients and public.

Since its institution, the revenue of the Marine Hospital Fund has been unequal to the demands against it, and Congress has been annually called upon to make appropriations in aid of it. In a speech delivered in the House of Representatives, on the 4th February, 1847, the Hon. Daniel P. King, of Massachusetts, expressed the following views:—"My object in rising is to propose the following amendment: 'To supply deficiencies in the Fund for the Relief of Sick and Disabled Seamen, \$12,000.'"

* * * * *

"In the last year's general appropriation bill, I proposed an amendment giving twenty-five thousand dollars to supply deficiencies in the marine hospital fund. The chairman of the Committee of Ways and Means, always desirous of saving the people's money for the uses of the people's Government, strenuously opposed the measure; but the House, actuated by a sense of justice, after a full discussion, adopted the amendment, and it became a law. The same necessity for an appropriation now exists, and it shall be my endeavour to satisfy the committee that justice and good policy demand it. For more than forty years this annual appropriation has been made, and no money has been better applied or more gratefully received. Now, when by the bad policy of the Administration the revenue has been diminished, and the expenses of the Government much increased by a war which I consider wanton and unnecessary, these poor, sick, and disabled sailors must be put on half allowance, and, instead of the usual appropriation of twenty-five thousand, it is proposed, as more likely to secure the favour of the committee, to give them twelve thousand dollars. If you will allow the money to be expended where it is collected, Massachusetts sailors will ask for themselves nothing more; but with a characteristic generosity, they desire that relief may be ex-

tended to their suffering shipmates, wherever they may chance to be overtaken by sickness and misfortune. The expense of maintenance and medical attendance is much less in the northern than in the southern hospitals. The sailors do not complain of the tax laid by the Government upon them; but they want that it should be honestly and fairly expended. If the amount of tax is not sufficient, increase it, but do not deprive them of their hard-earned rights. Individuals of them may have contributed, without complaining, for twenty or thirty years to this fund, without needing relief. When, by sickness or accident, they are now in want of its aid, it is denied them, because the fund is for the time insufficient. The amount collected in 1844 was \$85,017; the amount expended, \$109,541; the number of sailors relieved 7,000; of these, 720 received relief in Massachusetts, where the amount collected was \$14,271; the amount expended, \$11,608. You can remedy the evil by an annual appropriation; you can try the experiment, for wild experiments in legislation are the order of the day, by providing by law that no sailor shall be afflicted by sickness or accident from the first day of January to the first day of April, annually. The experiment would probably fail, but a prudent and paternal Government would not fail to make the provision contemplated by this amendment.

“By a law passed July 16th, 1798, it was provided that all masters of vessels arriving from foreign ports shall, previous to the entry of their vessels, pay to the collector of the customs a sum equal to twenty cents per month for every seaman employed on board their vessels, which sums they were authorized to retain from the wages of such seamen. Provisions nearly the same have been made in relation to persons engaged in the coasting and inland trade; and the several collectors are required to make quarterly returns to the Secretary of the Treasury; and, from the money so collected, provision is made for the temporary relief (not exceeding four months) of sick and disabled seamen in hospitals, or such other places as may be provided.

“Seafaring men are proverbially improvident; in their generosity they would divide their last dollar with a suffering shipmate or brother tar. Many of them have no abiding home; they are citizens of the United States and have no particular claim on any municipality for relief. When overtaken by disease or poverty, they are the proper subjects of national charity. It would not be improper, then, that the needy and afflicted of their number should be provided for by the General Government. Instead of doing so you have enacted laws without their consent to compel them to provide for their own poor. This provision has been found by long experience to be insufficient. Until you have made it sufficient, do not justice and liberality require that you should supply the deficiency? and what class of our citizens are better entitled to the bounty of the Government? They brave the dangers of the ocean and the storm, that you may enjoy the luxuries of foreign climes. They are the instruments of bringing into the country the goods and merchandize, from duties on which you derive almost

all your national revenues. Generous themselves, they will appreciate the generosity of the Government, and love their country all the better for its kind and not unmerited provision for them."

[Mr. K. made other statements to show the necessity and propriety of this allowance, and said he was satisfied that the House would afford this aid and comfort; and at this easy price secure the gratitude of many sailors in all portions of the country. This item was added to the bill.]

The adoption of the bill proposed, would relieve Congress from the necessity of making, annually, meagre appropriations for the relief of this Fund, and place sick and disabled seamen in a more comfortable condition than they are at present.

In conclusion, the writer begs leave to say, that he has no personal interest, direct or indirect, in the plan proposed, which must stand or fall on its own merits, after proper examination. The influence of his name can give it no weight; and as he does not seek praise for the suggestions made, he submits them honestly for the consideration of those legislators, who sincerely desire the good of our merchant sailors, now numbering, say 160,000, of our fellow citizens. He speaks for himself alone, and without asking the advice or consent of his fellow members of the medical profession.

W. S. W. R.

BIBLIOGRAPHICAL NOTICES.

Tracts on Generation. Translated from the German. By C. R. GILMAN, M. D., Professor of Obstetrics, &c., College of Physicians and Surgeons, New York; and THEODORE TELLKAMPF, M. D., Gebhard Professor, Columbia College. Number 1. *Proofs that the Periodic Maturation and Discharge of Ova are, in the Mammalia and the Human Female, Independent of Coition, as a First Condition of their Propagation.* By T. L. G. BISCHOFF, Professor of Physiology, &c., Giessen. 8vo. pp. 65.

The Medical Practitioner and Student's Library. The Principles and Practice of Midwifery. By DAVID H. TUCKER, M. D., Professor of the Principles and Practice of Medicine, &c. &c., with numerous Illustrations. Small 8vo., pp. 405. Philadelphia, 1848.

We are, in certain respects, a singular people; some of us, that is. Whilst the nature of our institutions would—it might be presumed—irresistibly impel us to regard all men alike, or make us pause before we unduly elevated one man far above another, nowhere, perhaps, do we find more numerous examples of recklessness in this respect, and of the influence of *cliquism* or favouritism of some form, under which men are *bruted* abroad as “distinguished,” “eminent,” although perhaps comparatively unknown, except in their own locality. The same, or a similar feeling, leads to individuals being designated as the “unquestioned heads”—the “most distinguished members” of their profession. There is evil in all this. It is, to say the least, invidious: and the very epithet “unquestioned” must almost always—if not always—be translated to really mean “questioned.” Most certainly we do not recollect to have seen it applied, except where a question might be entertained of its truth; and occasionally it has been directed—we have been so impressed at least—towards persons who ought themselves to doubt whether the epithet were employed in all seriousness—regard being had to the public evi-

dences they have exhibited of their fitness for it. We believe that there is real evil—as we have said—in this glorification. We should prefer that the republic of science should have no single head;—that there should be many heads to it, each holding co-ordinate rank. We would know of no such thing as British or French, or German, or American science. The realm of science should admit of no sections or subdivisions. It should be one and indivisible; and whilst glory should wait on the efforts of those who have succeeded in extending its boundaries; it should be a glory awarded not by sectional but by cosmopolitan voices; otherwise an invidious question might arise—which ought never to be permitted—as to the comparative value, for example, of a reputation for Philadelphia, or New York, or Boston science; and to an attempt to elevate in every community “unquestioned heads” in medicine, natural science generally, physical and moral science, &c., which would tend to a perpetual strife and confusion; a paralyzing of energies; and the detriment of science. If in our ordinary parlance, we were to estimate and to speak of an individual as “*one of the most distinguished men of science,*” “*one of the unquestioned heads,*” we should be nearer the truth; and assuredly less invidious.

The same kind of feeling induces us to extol unmeasuredly, and as certainly to spoil, those who come among us from abroad, after having exerted themselves successfully for the furtherance of knowledge; and there are few of the actors in the theatrical laudations of one, who visited this country almost as a literary hero, some years ago, and who was received with shaking of hands, and *feted* in every city through which he journeyed, who are not heartily ashamed of the part they played on the occasion. Yet individuals may be benefited by experience; masses rarely are; and when a like occasion presents itself, we shall doubtless have the same scene acted over again.

These remarks are suggested by a letter, contained in the work whose title is first given at the head of this article. For the name and services of M. Agassiz—the distinguished naturalist—no one has a greater respect than ourselves. Yet we consider the extravagant eulogies that have been passed upon him since his arrival among us, to be—to say the least of them—wanting in good taste, and we doubt not that they have been as far from

agreeable to the estimable and unassuming naturalist as they have been wanting in true dignity.

In a letter addressed by M. Agassiz to Dr. Gilman, he suggests "the propriety of translating into English, the pamphlet of Dr. Bischoff, upon Ovulation and Fecundation of the Mammalia," which he characterizes as a "model in this kind of experiments," and expresses a hope, that by introducing the work of his learned friend before our physicians, "it will become a link the more in the pleasant intercourse which already exists between the scientific men of the two countries, and start some of our young men in the line of original investigation in this important department."

M. Agassiz has been too short a time among us to know what has been published in this country, or to be aware, that with every observing, reflecting, and reading physician the name and labours of M. Bischoff are as familiar as their household gods; but the American editors of this "tract"—one of them especially—the Professor of Obstetrics, &c., in the College of Physicians and Surgeons, New York—ought to have been aware of the fact. "The letter of Agassiz"—say the Editors—"which accompanies this, will explain the reason why this translation was made, and commends it to the notice of American physiologists more powerfully than any word of ours could do:"—and they add, "This tract is issued as No. One of "Tracts on Generation" *translated from the German*," and we desire and design if our publishers are encouraged to go on with the work, to follow this by translations of other of the more interesting monographs on generation, which have appeared in Germany during the last few years. Ovology and Embryology, may without exaggeration, be called *German sciences*," [the Italics are in the original] "and we cannot doubt, that American physicians will be glad to possess, in their own language, the original researches of those who have taken the lead in these important subjects. In the series we propose, original researches only will have place, and when we say that in making our selection we shall have the aid of Agassiz, we give the strongest assurance that they will be judiciously made." And then comes a sentence, which shows, in addition to one or two matters, on which we shall have to animadvert, how strangely defective the Editors must be in their acquaintance with modern medical literature. "It is proper to state, that a translation of the greater

part of this tract appeared in detached portions in the London Medical Gazette of 1845-6. *Of the existence of this translation we were not aware till ours was in progress, and we have not availed ourselves of it.*" p. vi.

But, in the first place we may ask, on what authority do the editors affirm that "ovology and embryology may, without exaggeration, be called *German sciences*." That we are largely indebted to German observers on these subjects no one can question; but a question can as little arise as to our indebtedness to those of France and England. No one can refer to the pages of a cosmopolitan work—if we may be permitted to employ the epithet for one whose object it is to do justice to the labouring men of all nations—on physiology, without perpetually striking upon the names of distinguished individuals of other countries, whose investigations have effected as much for the advancement of ovology and embryology as those of Germany. We will not follow the vicious custom of adducing a string of names to support this assertion, under the fear that, by omission, we may unintentionally do injustice to some member of the community of science, eminently worthy of notice: but we say again, let the reader refer to any physiological treatise, written in our own country, by one who is himself acquainted with all that has been done elsewhere, and ready to do justice to all—and we believe that many of our works are more cosmopolitan in their character than those of other countries—and he will have some difficulty in deciding as to what nation—if the invidious question be raised—has done most to make the science of ovology and embryology its own. The German, the French, the English, may have a bias to their own country. Young and ardent neophytes—not perhaps eminently capable of judging when they entered—and still less so when they left—the glare of the capitals of Europe—

"Returning from their finished tour,
Grown ten times pertier than before,"

may give their decision for the one or the other, according to impressions received when abroad; but the sober and sound-thinking individual, will be compelled to award praise to all, and to avoid-offensive comparisons. Even on this very subject of ovulation, or of "the maturation and discharge of ova, independent [independently] of coition"—and who, at the present day, requires

any proof of this fact?—M. Bischoff refers to the labours of Raciborski, Duvernoy, Pouchet, Négrier, and Gendrin, all *Frenchmen*, and to Messrs. Wharton Jones, Dr. Lee, and Dr. Paterson,—*Englishmen*, whilst he does not notice the observations of a single German, on the subject of what the editors designate “German science.” Nay, at this very time, and both in the recently published and most extensive work on the subject of ovulation that has appeared, by M. Pouchet, and in the very “tract” before us, a controversy is maintained as to the precise individual, Bischoff, Pouchet, or Raciborski, who first established the connection between ovulation and menstruation,—a subject, by the way, still requiring investigation, and very far, in our opinion, from being settled in accordance with the views of those who are the most dogmatic on the subject. We would, indeed, suggest to the editors of this “Tract” and Series of Tracts, should the publishers be encouraged to go on with the work, which we seriously apprehend they will not, to re-publish the valuable articles of Dr. Ritchie, of Glasgow, which—as they do not appear to see the *London Medical Gazette*—we would inform them, are contained in that journal for 1844, in order that they, who read M. Bischoff’s views on the maturation and discharge of ova, as connected with menstruation, and menstruation only, may learn, that ample evidence of the most forcible kind is afforded by him—the result of attentive and multiplied observation—that even during childhood, and in the intermenstrual periods, unfecundated but matured ovules leave the ovary.

We cannot, however, assign much more space to this notice. We may add, that in the work of Dr. Tucker—written before the publication in this country of the “Tract” before us—we find much space given to the experiments and observations of M. Bischoff among others; to the vexed question of the connection between ovulation and menstruation; the asserted “impossibility”—according to M. Pouchet—a most hazardous and unproved position—of impregnation ensuing after the first twelve [or fourteen] days from the cessation of the catamenia—the ovule, according to that gentleman, requiring twelve days, and rarely fourteen, for it to be discharged with the decidua. We have said, that the doctrine of M. Pouchet is a hazardous one. It is really less so, however,

as shown by Dr. Tucker, in a note to his chapter on generation, than it might appear to be at first sight.

"The case," says Dr. Tucker, "extracted from the work of Dr. Dewees, whose authority cannot be questioned, proves that a female may be impregnated one week before the occurrence of the catamenia: while Pouchet, &c. assert that impregnation may occur as late as twelve days" [and even fourteen days] "after the menstrual flow. Now if these twelve days of susceptibility be added to the number of days previous to menstruation, during which fecundation may occur, as ascertained by Dr. Dewees, we will have nineteen days out of the twenty-eight, during which a female may be impregnated. But more than this, if we add to these nineteen days four or five days for the duration of the menstrual flow, it will give us twenty-three or four days out of the twenty-eight, during which a female is capable of impregnation, leaving only four or five days" [two or three] "as the length of time during which it is impossible. It may be objected, that Dr. Dewees asserts, that the female was "within a week of her menstrual period," and therefore we have no right to assume that it was seven days previous to the catamenia. To this we would reply, that the case *certainly* proves that impregnation may occur before the catamenia, and is, therefore, in any point of view, destructive of the assertion laid down by Pouchet. But this is not our only proof. M. Raciborski states, that fecundation may occur a few days before the catamenial flow; and Montgomery has reported a case in which it was accomplished three days before the catamenia commenced." p. 74.

As Dr. Tucker's work, by the way, is open before us at the very place, we may cite his summary of the theory of generation—a most intricate subject on which obscurity rests—not dispelled, we think, by his statement, which is itself far from being classically expressed, or characterized by what we would deem to be sound physiology.

"The theory of generation may," he says, "be summed up as follows: the female furnishes the germ, egg or ovule: which pre-exists, or is produced, in indefinite numbers in the ovarium; which matures at certain periods, ruptures its natural covering, and is brought into contact with the seminal fluid, either at the ovary, or in the oviduct, or in the uterus. The male, on the con-

trary, furnishes a fluid, composed not of anamalcules" [M. Pouchet, in his late work, has endeavoured to exhibit that they are animalcules, and has given drawings to show their organization] "but of bodies having the power of motion, like the epithelial cells, &c.; that these bodies are carried by an unknown power to the Fallopian tubes or even to the ovaries; when meeting with the ovule divested of its coverings, by a union of the two, how, we know not, *vitality results*" [?], the *being* thus formed being composed of principles from each parent, will at times present traits of resemblance, both moral and physical, to either one or the other, or perhaps both parents." p. 75.

Of Dr. Tucker's "*Elements of the Principles and Practice of Midwifery*"—[we do not like the term "Elements of the Principles"] we are happy in being able to speak in language of approbation. The limits assigned to him obviously precluded a full consideration of every subject; and, being his first production, it was not—could not be—easy for him to be entirely *equal* in the amount of attention bestowed upon them. The work requires especial commendation for the modest, unostentatious tone in which it is written; and the entire freedom from that assumption of originality, and oracular arrogance, which belongs to many who are not by any means as truly informed as he, as to what has been done every where by others. There is no attempt to place prominently forward any favorite school or *clique*, or to extol inordinately or invidiously what has been done by French rather than German—by German rather than English, and by all rather than by American observers, as we too often notice even on this side of the Atlantic. To Cæsar every thing that is due to him is rendered; and the reader cannot rise from the perusal of the work without being satisfied, that the author is an educated, well informed and liberal gentleman; and that his work is deserving of that place in the library of the student and practitioner for which it was originally destined by both author and publisher.

Practical Physiology; for the Use of Schools and Families.

By EDWARD JARVIS, M. D. 12mo., pp. 368. Thomas, Cowperthwaite & Co. Philadelphia, 1848.

To popular treatises on diseases and their remedies we are on principle decidedly opposed; for the very sufficient reason, that all such must necessarily be very imperfect; and if they were otherwise, the amount of time and attention necessary for their proper comprehension would not be given to the subject by any but those who make it the business of their lives. On no other subject, according to our observation, do shallow draughts so intoxicate the brain, and certainly in nothing else is intoxication so dangerous. The half-instructed physician is always the most confident of his knowledge and his means, whilst the well-informed ponders at every step.

But the work before us is not liable to these objections. As its title sets forth, it is not designed for the professional reader. It is too brief, too general in its facts, and too limited in its scope. Such will of course drink at deeper fountains—as the books of Müller, Dunglison, or Carpenter. But for the class of readers referred to in the title, Dr. Jarvis's book seems to be of the right stamp. It supplies the amount of information which is necessary for the general scholar and the ordinary walks of life, without much argument or detail, and consequently without much consumption of time or labour of mind. There is in it no parade of cures or remedies but such as are hygienic, and these can be understood and acted on by every one. It is on these subjects that the author has indulged most in discussion; and although perhaps the most useful part of his production, it is on these topics that he has rendered himself most obnoxious to criticism.

The book is concisely written—sententious—sometimes quaint, but always intelligible.

THE MEDICAL EXAMINER.

PHILADELPHIA, MARCH, 1848.

ANÆSTHESIA.

When our Boston brethren first announced the discovery of an agent for producing complete insensibility during surgical operations, we expressed our candid, but very serious doubts, whether the condition of the nervous system could be so modified without imminent danger. Our fears on this point are not yet entirely removed; but, as intimated in our last number, the cases in which the agents have been employed for this purpose, are now so numerous, and the aggregate results so favourable, that we cannot deny that the dangers from their employment seem to be far less than we apprehended.

The dawn of this great discovery—the greatest, perhaps, of the age—was singularly infelicitous in its attending circumstances. The murky clouds of avarice hung thickly about it, and shut out generous confidence and hope, by the suspicions and reasonable doubts which such unworthy aims naturally excited. So long as cupidity sought to conceal the agent under a strange name, and to limit its usefulness by the penalties of a patent, we felt that we could have neither lot nor part in it:—we were unalterably determined to let it alone. Now that the empirical garments with which its fair proportions were veiled and deformed, have been stripped off, and every eye may view it without prejudice, we may contemplate the subject with the calmness which becomes its deep importance. To our country belongs, in part, the honour, not only of the discovery of the now most popular agent, chloroform, but of the much greater discovery of the powers of the ether, which has led to the employment of both as anæsthetic agents; and but for the meretricious character first cast upon this noble contribution to science and humanity, how proudly might Americans point to it and claim it as their own! However, the subject is now open to the widest range of experiment and observation. While it is conceded, that both sulphuric ether and chloroform, will, by inhalation in sufficient quantity, produce insensibility to the most painful lesions, it remains to be determined which is the best adapted for general use, as well as the extent to which the influence of the agent may be safely

carried; the circumstances most proper for its employment, and those which render it hazardous or altogether improper. Time and observation alone can give us this information, and prudence forbids that we should be in haste in forming our conclusions. The communications, contained in our present number in relation to these points, are of great value. It will be seen that Professor Simpson is unqualified in his preference for chloroform, and that he deems it quite a safe remedy, even although he admits that symptoms are often induced that must alarm a novice. Professor Meigs, without denying the utility of this means of allaying pain as a pathological or morbid symptom, contends that the ordinary pains of labour are natural or physiological, and therefore not to be interfered with. This is a very important distinction, and our prepossessions, at least, coincide with the opinions of our colleague on this point.

The cases reported by Dr. Clarke, in which sulphuric ether was employed to alleviate the pains of labour, seem almost conclusive as to the utility and safety of the remedy. We have nowhere seen more decided or satisfactory results,—the more satisfactory to us, indeed, because of our knowledge of the plain, practical, and altogether truthful character of the reporter.

The last quarterly report of the College of Physicians of Philadelphia contains a report on this subject, by Dr. Isaac Parrish, embracing an excellent summary of the cases published prior to that time, from which the reporter arrives at conclusions very similar to those we have expressed in the course of these remarks.

ASIATIC CHOLERA.

The last advices from Europe, speak of the appearance of cholera on the borders of Prussia, but it is doubtful whether it has progressed so far. We do not discover, in fact, any certain information of its advance westwardly, nor does there seem to be so much excitement on the subject, so far as we can judge by the English and French journals.

SHIP FEVER.

The ship or typhus fever seems to be prevailing to a great extent in the hospitals of New Orleans, more especially among the emigrants. In all our Atlantic cities, particularly north of the Potomac, we have had, during the winter, more or less of the disease in the receptacles of the poor emigrants, whether public institutions or private habita-

tions. In the latter abodes, the destitution is often so great that one cannot be surprised that disease should reign, but rather that any individuals so exposed should escape.

The length of several communications contained in the present number, has prevented the insertion of the usual variety in our *Record*, as well as excluded some shorter articles, and notices of new publications. These shall be attended to in our next.

RECORD OF MEDICAL SCIENCE.

PHILADELPHIA MEDICAL SOCIETY.

Appointment of Delegates.

DR. HUSTON,

Dear Sir,—I enclose you for publication in the Examiner, the lists of the delegates of the Philadelphia Medical Society to the National Medical Association, and to the State Convention, elected February 5th, 1848.

To the National Medical Association,—Drs. B. H. Coates, C. Morris, Bell, Bridges, Ashmead, Reese, Emerson, Warrington, I. Parrish, and West.

To the State Convention,—Drs. Emerson, Bell, B. H. Coates, Norris, H. H. Smith, Rutter, Shallcross, Bond, R. Paul, and I. Parrish.

Very truly yours,

Feb. 16th, 1848.

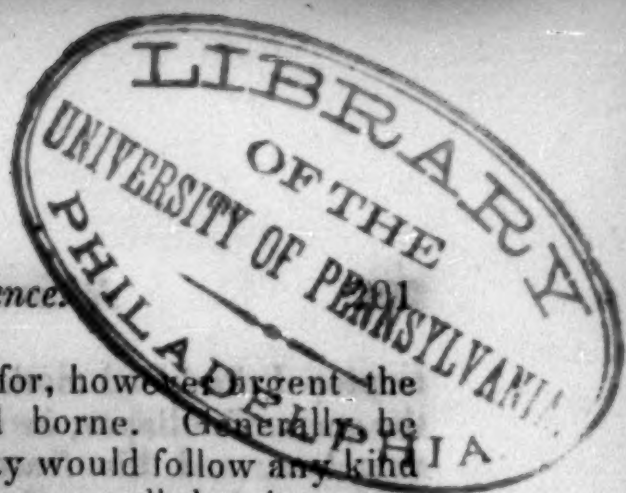
JNO. J. REESE, Secretary.

WESTMINSTER MEDICAL SOCIETY.

The prevailing Influenza.—Dr. Lankester, in allusion to the great prevalence of the present epidemic, observed that, contrasted with the influenza of former years, one of the characteristics of the present visitation was its greater prevalence and less severity. He had found among the patients attending the Pimlico Dispensary that many were effected by bronchitis; but out of one hundred and fifty instances of the disease, he had met with but two cases of pure pneumonia. Sore throat obtained in about half the cases; this symptom was attended by difficulty in swallowing. In some instances, the disease became even diphtheritic. The general nervous symptoms, the depression and pain in the head, were similar to those which had been exhibited in former epidemics. The same law with respect to depletory mea-

1848.]

Record of Medical Science.



asures held in this as in former visitations; for, however urgent the symptoms appeared, depletion was but ill borne. Generally he thought the less we did the better, for debility would follow any kind of active treatment. He had seen one case assume all the characteristics of typhoid fever from too active treatment.

Dr. Ogier Ward said, that in Kensington the influenza presented the usual characteristics enumerated by Dr. Lankester. The pain in the head was the most general symptom; the sore throat prevailed in four-fifths of those attacked; and he had usually found it best relieved by an inhalation of warm vinegar and water. It was by no means a violent disease. The only case he had seen of much severity was a case similar to diphtherite, and which he had successfully combated by Brettoneau's system. In some cases in which the pain in the head was most severe, the pain had been relieved by spontaneous bleeding from the nose. This might be a useful hint for practice, but he had never ventured on even local bloodletting. He then read a paper on

The treatment of Asiatic cholera in the stage of collapse.—He confined his observations to the collapsed stage as being most fatal, and therefore the best test for the utility of remedies; and in order that he might effect his purpose of ascertaining the most efficient remedies impartially, neglecting the results of his own experience, derived from nearly 400 cases, he had investigated the numerous reports and returns to the government on the subject, and had thence selected those remedies which, from the statistics of the numbers cured by their use, or from the description of their direct effects, appeared to be most trustworthy; and he had the candour to state, that by this process he had been induced to regard with more favour certain remedies which a prejudice, derived from a limited experience, had led him to consider as worse than useless. In reply to those who thought no treatment of any service, he instanced the frightful mortality in India, Persia, and Russia, where little or no medical aid was procurable; and took occasion to congratulate the medical men of this country on the low rate of deaths (one-third) compared with the mortality in France or any country in Europe, which he attributed, under Providence, to their superior practical knowledge of disease in general. The idea of the nature of cholera that seemed most consistent with its symptoms and with the effects of treatment was, that it is the prolonged cold stages of a peculiar form of fever, presenting more analogies with continued than intermittent fever, the effect of a poisonous miasm, which, if very intense, destroys the patient, without the occurrence of any active symptoms, in a few hours; but in other cases induces a gradually increasing congestion of the internal venous system, which relieves itself by the effusion of serous fluid into the stomach and bowels, which is as speedily removed by the actions of vomiting and purging. The blood thus deprived of its serum becomes thick and black, and is deprived of its vital properties to such a degree, that, unable to imbibe oxygen in the lungs, it ceases to stimulate the heart, which organ is thus unable

to propel the blood to the extremities or through the lungs. This is the stage of collapse, in which the patient is blue, cold, pulseless, and voiceless, and his features are shrunk to such a degree that his dearest and nearest relatives do not recognise him; and this is the most fatal stage and that least under the influence of remedies. Nevertheless, even under these deplorable circumstances we must not relax our exertions; and the list of curative means employed with success, proves that much may still be done for the relief of the patient. The most approved external remedies were, external heat, cold affusion, and counter-irritants. The author attempted to account for the favourable opinion of the application of cold in Persia, and of heat in Russia and the rest of the northern countries, partly by the concordance of such ideas with the ordinary feelings of the inhabitants of such different climates, and partly by the notion that in Persia, where the thermometer is above 98° in the sun, the patients, exhausted of their fluids by the disease, would be dried up and mummified by any attempt to keep up the temperature of the body by exposure to the sun's heat; whereas in Russia, &c., it was supposed, and probably with truth, that as cold is a direct sedative, its opposite, heat, was necessary to restore the vital powers. All the reports concur in the efficacy of cold affusion in inducing reaction; and its success appears to have been in proportion to the violence of the shock. Counter-irritants were successful only in connection with other remedies; but they deserve attention from their stimulating power, and their readiness of application. Bloodletting was useful in every stage in relieving the congestion and rousing the heart by removing the load that oppressed it. In the state of complete collapse salt-and-mustard emetics, to excite the system, followed by bleeding, was a favourable mode of treatment. The internal remedies most to be relied on in the stage of collapse may be classed under the heads of revulsives, stimulants, and specifics. The first class, besides emetics of salt and mustard, comprised tartar emetic and croton oil, and calomel in large doses. The effect of each was to check the vomiting and purging; but the three last were remarkable for their power of restoring the flow of bile, of a dark-green colour, when tartrate of antimony or croton oil had been used; and like blue ointment, when the calomel had been given. The action of all three is supposed by the author to be irritating to the mucous membrane of the stomach and bowels, of which it stops the secretion by changing the action of the part. The blood thus diverted from the membrane returns without loss into the portal system, and by the secretion of fresh bile, previously pent up in the gall-bladder, is expelled, the spasm of the duct having been relaxed by the irritation of its orifice, produced by the tartrate of antimony, calomel, or croton oil. The blue colour of the bile when calomel was used may perhaps be explained by the decomposition of the salt by the alkali of the bile. From the number of returns in its favour, besides the extensive experience of the author in its use, he is disposed to place most reliance on the croton oil, as its action is simply irritant, (many of the patients complaining

that it made their throats sore when given in solution or suspension;) whereas the tartar emetic is a direct sedative, and, hence, may be dangerous; and the author had given calomel most extensively in large doses without ever having seen such effects produced as those which he has mentioned above from the reports of others. Stimulants, after a fair trial, were almost universally condemned; and yet it is remarkable that M. Magendie had more success with his punch than any other of the Parisian physicians. His great rival Broussais was so unsuccessful, that he entirely relinquished his care of cholera patients at Val de Grace. Opium, either in small doses as a stimulant, or in large ones as a sedative, was equally unfit to be relied upon. The last class—specifics—comprises calomel, with or without opium, cold water, salines, and quinine, although the author never met with a single case of real cholera in which he could trace the recovery of the patient to the influence of calomel, nor ever observed that it produced any specific effect whatever; still, from the almost unanimous approval it has met with, and his own experience of its benefit in English cholera, he would strongly recommend it for future experiment, as being, at the least, perfectly harmless, though taken in enormous doses. He would also adopt the use of cold water *ad libitum*, upon the faith of the reports in its favour, though his own experience is decidedly opposed to it. Salines, on the other hand, when well diluted, have, besides a number of most favourable reports of their efficacy, this hypothesis in their support—viz. that they restore to the blood by their endosmosis through the coats of the vessels, if not by their being absorbed directly into the circulation, the saline matter removed by the serous evacuations; whereas, the water, if it be not rejected by vomiting, as in the author's experience, could scarcely be absorbed, the tendency of the venous system being to empty itself; nor, if it were absorbed, could it supply to the blood those saline elements of which it had been deprived. In the author's experience, the best mode, though a painful one, of arresting vomiting in all cases, is to keep the stomach empty; when, after a time, it will cease to suffer the action of vomiting, whatever that may be. From an attack of English cholera he suffered, and thus cured, the last efforts of which produced only bloody mucus, as well as from other similar results after emetics, the author believes that the stomach contracts itself during vomiting. Quinine, viewed in reference to the hypothesis of the intermittent nature of cholera, seems worthy of further trial than it has yet experienced. In conclusion, the treatment recommended by the author in the stage of collapse would be the following, and much in the same order as the remedies are stated; Cold affusions; hot air; external counter-irritation, and frictions; venesection; mustard-and-salt emetics; cold water *ad libitum*, or Dr. Stevens' salines; calomel, and tartrate of antimony, alternately, in large doses; and, if all failed, croton oil.

Dr. Lankester spoke of the fallacies likely to arise from placing too much dependence on individual experience in this disease; we could scarcely arrive at any definite conclusion from the treatment

of fifty or a hundred cases in any single district. Every remedy which had been employed had its advocates, among others he might allude to one not mentioned by the author—carbonic acid, which was said to be most successful. We must, in the absence of sufficient information on the subject of treatment, reason from analogy, and after observing the symptoms, inquire what would relieve analogous symptoms in other diseases. Let them take the collapse, for instance; in this condition the blood all left the surface, and the internal organs were congested. To bring the circulation back to the skin was clearly indicated; hence the application of hot air to the surface, and stimulating liniments, were recommended and said to be used with success. In Russia, camphor liniments for this purpose have been found of great service. Another object was to supply to the blood the fluid which was lost by the copious watery evacuations. These evacuations took away the saline matters from the blood, and hence cold water with salines was no doubt an important agent. But salines, when so administered, must be given in small quantity in large quantities of water, for if the opposite were employed, it would defeat the object of the administration. The liver was evidently deranged in these cases, and it was most important to restore the action of this organ, for he believed it was quite proved that the presence of bile in the intestines was essential to the production of animal heat. Calomel was hence indicated, but not, he thought, in large doses; it might be combined with small doses of opium to prevent its being carried off by the bowels.

Dr. King had the charge of a large district during the prevalence of cholera. At first he was quite at sea how to act in the stage of collapse. He first employed Steven's plan of salines, with small doses of calomel and opium; but almost all the cases were fatal. He then pursued a stimulating plan, with a similar result. He ultimately adopted the system recommended and practised by Mr. French. He placed a pail of cold water by the bedside of each patient, and allowed them to drink *ad libitum*; when the patient began to vomit, he considered, as a general rule, that he would do well. He should mention that, in addition to the water, he gave large doses of calomel, which might have had a share in producing the result. Those who recovered were all more or less affected with the calomel. When hiccups came on, he considered the patient out of danger. He found bile in the evacuations after this treatment, the fæces being of the colour of the blue mercurial ointment. He did not think the heart the chief seat of the disease. All pregnant women died. He spoke of the necessity of perfect repose in the treatment of the disease, and stated his belief that many patients had died on removal to the hospital. More success attended those who were treated at their own homes. Croton oil, according to his experience, was not of service. Hot air applications did harm; cold air was preferable. Brandy and all stimulants were injurious.

Mr. French said, that in conducting the treatment of the collapse of cholera, before using indiscriminately the articles of the materia

medica, we should study the curative process adopted by Nature to this end. We readily enough admit that this kind of knowledge is absolutely necessary in conducting the treatment of mechanical injuries, and that surgery is only a successful art when this principle is borne in mind. The mode in which reaction is accomplished by Nature from the state of collapse in cholera, is a process with which I am perfectly familiar, by direct observation, and it is very simple. It consists in absorption of water into the bloodvessels, and in vomiting. It may be confidently stated, that a patient who is no longer purged, and who is vomiting, is undergoing reaction in the most favourable way possible; just as "adhesion" constitutes the most favourable and rapid cure of certain wounds. But to state the method more fully, it may be thus expressed:—

1st. Absorption of water into the bloodvessels; the patient's intense thirst inducing him to take this fluid freely.

2dly. Nausea; which produces a general relaxation of the system, thus diminishing obstruction to the passage of the blood in the congested vessels.

3dly. Vomiting; which mechanically assists in driving forward the blood in the congested vessels.

In the more intense states of collapse, the process of reaction is not established before the vomiting has continued for three days. In slighter cases, collapse, reaction, and convalescence, may all occur in twenty-four hours. When, however, the disease pursues this course, cases which presented the most hopeless aspect may do perfectly well, either becoming directly convalescent, or if local congestions and inflammations ensue, they assume an active character, and are under the control of art, while if this process has been frustrated, they commonly pass into a state of congestive and typhoid fever, in which they either sink or recover with great difficulty. As to the essential nature of the disease, I believe it consists in a poisonous influence which is exerted directly on the heart, depressing its action; for these reasons:—

1st. The heart's action is always diminished in this disease.

2dly. No essential lesion of any other vital organs really exists.

3dly. All the other symptoms and physiological conditions admit of explanation on this hypothesis.

The first argument is admitted by all observers. It will be also admitted that the functions of the brain are remarkably well performed until the very period of death. Then, there is no asphyxia, for these reasons—the mechanical apparatus is undisturbed. We are familiar with the symptom, "coldness of the breath," (inconsistent with asphyxia;) the recumbent position, so necessary to the cholera patient, would not be suitable for the state of asphyxia. Dr. Parkes, who has recently published a work replete with interesting facts on cholera, denies the paralytic condition of the heart, because the left ventricle was always empty; he also found that the lungs were extremely collapsed, and infers that the cause of the arrest of circulation must be sought for in the blood itself. The average duration of

the disease, in the cases in which Dr. Parkes made post-mortem examinations, was ten hours; the observations were made sometimes a quarter of an hour after death; in all the cases the heart was found inirritable to the stimulus of the knife, while the muscles contracted under this stimulus. With the hope of learning something on these points, I destroyed a rabbit in two hours by repeated doses of infusion of digitalis; the animal became gradually too feeble to move, breathed quickly, and died: on opening the body, the heart was still feebly pulsating. The lungs were completely collapsed, and the left lung was so firmly contracted, that it sank in water; it readily admitted of inflation. The right side of the heart contained blood, and there was a very small clot in the left auricle; but the left ventricle was perfectly empty. The heart was quite as irritable to the galvanic stimulus as the muscles. From this experiment I infer, that the influence of cholera on the circulation is exerted in the same way as that of digitalis. With regard to the condition of the blood in cholera, I believe it to be the best under the peculiar physiological condition of the patient. Blood in the normal state is intended to be constantly circulated with a regulated amount of force. If this force be exceeded, we find that the fluidity of the blood is increased, that it acquires a brighter hue, and that it possesses the power of coagulating more firmly when stagnant. The converse of all this obtains with diminished force of circulation. To this alteration in the constituents of the blood is possibly owing the absence of fibrinous deposits in the heart of the vessels; the retention of its homogeneous condition, and its adaptation for the re-admixture with water during reaction, so soon as the baneful effects of the poison shall cease to be exerted in the system. Thus, to sum up:—In proportion to the force with which the circulation is controlled, either death results, or the blood is diminished in quantity, and altered in quality, by a secretion from the alimentary canal—the overwhelming effects of sudden congestion and fibrinous deposits being probably thus prevented.

Dr. Ayres had found more success from the employment of stimulants, in the stage of collapse, than from any other remedies. He had given brandy in large quantities, and opium, with the view of relieving the cramps, which were so distressing. He differed from the views advanced by Mr. French, respecting the pathology of the disease, and thought that the loss of the fluid alone was sufficient to explain all the effects on the circulation.

Dr. Webster remarked that it was satisfactory to know from the Reports of the Registrar-General, that last week no case of cholera had occurred in London—that two had occurred in the first week of November and seven in October; and that in the summer quarter ending September 1847, there were only 98 deaths from this disease, whilst in the corresponding quarter of 1846, there were 197 deaths from this cause.

Dr. Ward, in reply, said that he confined his remarks in the paper to the treatment of the disease, more from the experience of others than from his own; but he might observe that, curiously enough, he

was in a district close to that occupied by Dr. King, in Staffordshire, without knowing it, until the remarks made by that gentleman on the present occasion. He might observe that he had tried the cold water plan recommended by Mr. French. The first case was favourable to its employment, but future experience had shown him that it was not a successful plan of treatment. Pregnant women attacked with this disease after aborting, all died. He had employed croton oil in the fifteen cases, all of which recovered but one, who died from the secondary fever.—*London Med. Gaz.*

Spontaneous Rupture of the Uterus before labour. By THOMAS F. BROWNBILLI, Esq., Surgeon to the Salford Workhouse.—M. A. Glover, aged 28 years, was of rather short stature, well proportioned, and had a healthy appearance. She had been married about eight years. In ten months after her marriage, after an ordinary labour of about nine hours' duration, she gave birth to a full-grown female child, which lived about four months. Soon after labour, which I understand was quite natural, she was seized with convulsions, followed by delirium, &c., which, continuing for a week or ten days, subsequently resulted in an attack of puerperal mania, for which she was afterwards admitted into the Manchester Workhouse. Here she remained about two months, and, as no improvement had taken place, was then sent to the Lancaster Asylum, whence, having been confined seven or eight months, she was discharged cured, and from that until the present time, has enjoyed uninterrupted good health, having been separated from her husband most of the time since her last confinement. She again became pregnant, and was admitted into the Salford Workhouse on the 4th of November last, in order to lie in.

She stated that in the beginning of the seventh month of gestation, whilst hanging out some cloths, she received a fall, which shook her violently, but did not cause her, either then or afterwards, any particular pain. On the 20th of November, at 6 A. M., after having passed a restless night, with occasional slight uterine pains, she began to vomit. This was followed by several pretty strong pains, during one of which she experienced, (to use her own expression,) a severe crack in the back, with a feeling of something suddenly giving away in her inside, which was immediately followed by a discharge of liquor amnii from the vagina. The midwife, Mrs. Livsey, (an intelligent and experienced person,) was accordingly sent for, and was soon in attendance. She found, upon examination, the os uteri nearly closed, hard, and incapable of admitting the point of the finger; there was a slight discharge of a dark brown colour from the vagina; the patient had vomited the contents of the stomach, and the pains had altogether subsided. Under these circumstances, she left her and found, on her return at 3 P. M., that she had had no pain during her absence; the os uteri was lower down, and more yielding, though not in the least dilated, and a slight discharge of water, tinged with blood, escaped whilst making the examination. She had not slept,

nor felt the motion of the child since. Soon after, the waters broke. A dose of castor oil was now ordered.

On visiting her the following evening, at the request of Mr. Roberts, the governor of the Workhouse, I found the oil had been rejected by the stomach, and the vomiting had continued more or less to the present time, the matter at first being of a greenish yellow, and afterwards of a chocolate colour; labour had not in the least progressed, the os uteri remaining as before, if anything, more contracted; had no pains; complained of being weak and poorly, and, although several opiates had at short intervals been administered, she had as yet not slept, and with a feeble pulse, her countenance now began to assume an anxious expression.

November 22nd. About 11 A. M., she began to doze for short periods, but this state soon gave way to extreme restlessness, almost incessantly requiring her position to be altered. She now complained of severe pain in the middle of her back, and her pulse was evidently sinking. Between one and two o'clock her breathing became laborious, her finger nails turned livid, a continued gasping followed, and in this state she died.

The body was inspected, twenty-four hours after death, in the presence of several medical friends, and Mr. Roberts, the Governor. The abdomen was found to contain a large quantity (about two pints) of dark-coloured, uncoagulated blood, probably diluted with a portion of the liquor amnii, and this being partially removed, the first object that presented itself, entirely excluded from the womb, and partially covered by the omentum and small intestines, was a full-grown male child, that had evidently been dead several days, the first stage of putrefaction having commenced. On partially removing the child, which lay with its left shoulder to the womb, a large rupture of this organ was observed, extending from the centre of the fundus posteriorly along its whole length as far as the os uteri, leaving only a narrow rim surrounding it, and through which the child had escaped into the cavity of the abdomen. The length of the opening was about seven inches, and the uterus, which seemed perfectly healthy, was contracted over the firmly adherent placenta.

In the above unfortunate case there are several points worthy of general notice, and which are of peculiar interest to the obstetrician. The patient was at the end of her calculation, and had a well-formed pelvis; the child was full-grown, of average size, also well formed, and there existed between the two no disparity which would prevent the one easily passing through the other, supposing the presentation to be natural. From the time she first began to complain, up to her death, there was not the slightest pressure downwards; the os uteri was not at all dilated, and firmly resisted the introduction of the finger point, which effectually prevented me ascertaining the presentation of the child, nor was there any particular point or bulging perceptible in any part surrounding the os uteri, by which I could recognize its position. The os uteri projected downward a little way into the vagina, and above it seemed to lead to an obliterated cervix. Not-

withstanding this state of things, from from the total absence, since the first commencement, of anything like strong or bearing down labour pains, even at the time the waters escaped, it, never occurred to me that the uterus had probably ruptured, which fact I first discovered at the *post-mortem* examination.

The cause of the rupture is involved in much obscurity. She had not over-exerted herself, nor had she received any bodily injury since the time she fell, and the shake the fall occasioned was not followed by any soreness, or other inconvenience. Towards the end of gestation, she was often low spirited, and entertained a presentiment to which she often gave expression, that she should not survive the birth of her child. There was no softening of stricture in the uterus, nor any indications of previous inflammation. The surrounding soft parts were healthy; the usual predisposing and exciting causes were all absent. Even supposing there was mal-position, of the fœtus, that the wall of the uterus should be endangered from such trivial pains seems surprising. The case altogether is remarkable, and it presents an instance of the least, I believe, in frequency—viz., the longitudinal rupture of this organ extending from the centre of the fundus posteriorly in a straight direction, to within half an inch of the posterior centre of the os uteri.—*Prov. Med. and Surg. Journal.*

Crayons of Nitrate of Silver and Potassa.—We extract the following from the Bulletin General de Therapeutique. According to Dr. Desmarres, sulphate of copper, an efficacious caustic in cases of granulations, while they are vascular, is powerless when they become pale and nearly cartilaginous. On the other hand, cauterization with the pencil of nitrate of silver sometimes causes a too severe reaction, and thus occasions serious accidents. With a view of preventing these two inconveniences, the insufficiency of the sulphate of copper, and the excessive energy of the pure nitrate of silver, M. Desmarres caused a series of crayons to be prepared, composed of nitrate of silver and nitrate of potash, in the proportion of one-half, one-fourth, and one-eighth of the former. They are prepared in the following manner.

The two salts are mixed and fused in a crucible of silver or platinum, and stirred from time to time with a glass rod. As soon as the mass is in tranquil fusion, it is poured into moulds in the same manner as the nitrate of silver. These pencils are hard, firm, smooth, and unalterable in the air, and they can be carried in a case like lunar caustic.—*Dub. Med. Press.*

Ossified Gall-Bladder.—Mr. Bagshaw exhibited to the Bath Pathological Society an ossified gall-bladder. The individual from whom the specimen was taken, was a woman aged 70. There had never been any particular symptoms referable to the liver, except occasional bilious vomiting; the secretion of bile had always been abundant, and the appetite for food at times craving. The coats of

the gall-bladder were from an eighth to a quarter of an inch in thickness, and contained throughout an abundant deposit of calcareous matter, except at one or two points, where the deposit had not taken place. The gall-bladder contained a quantity of yellowish-white, pasty looking matter, which yielded about 40 per cent. of cholesterine. Mr. Bagshaw remarked on the case, as being one of considerable rarity.—*Ibid.*

Cholera.—The French government has appointed three physicians to proceed to Russia, to study the cause of the cholera. These physicians are Drs. Bean, Monneret, and Coutour, and they will take up their stations at Moscow, Odessa, and Trebizond. The last city is in a great measure deserted; instead of containing 60,000 inhabitants, but 10,000 remain in it.—*Ib.*

Chronic Enlargement of the Tonsils.—Dr. Naudin, instead of producing a slow, progressive destruction of the tonsils, aims at their preservation, and for this purpose employs a solution of nitrate of silver, three grains to one ounce of water, increasing the strength by three grains up to two drachms of the nitrate, in the same quantity of water, and also applying the solid caustic to the surface of those hollows which usually exist in such tonsils, so that all parts may be equally affected. During one sitting the tonsils are painted twice or thrice; the mouth is then well washed with water. This cauterization must be repeated every two or three weeks until the tonsils are restored to their normal size, and then gradually discontinued; it produces no ill consequences, and even children speedily return to their play. Should the parts become accustomed to the caustic, it must either be discontinued for a time, or another substituted, as Lugol's diluted solution of iodine. In two cases related by our author, the nitrate alone was employed. Both, aged thirteen and fourteen, had been affected for years, and were cured in two and a half to three months; in a third case—that of a girl aged eleven—the disease was extensive and obstinate, requiring four months' use of the caustic, besides the use of hyd. pot. and iodine internally, and as an ointment. In all these cases no return has been observed after the lapse of years, and the previous disposition to inflammation of the tonsils has been extinguished.—*Edinburgh Monthly Journal.*